

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1860.—Vol. XLI.

LONDON, SATURDAY, APRIL 15, 1871.

(WITH SUPPLEMENT) {PRICE FIVEPENCE.
PER ANNUM, BY POST, £1 4s

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(ESTABLISHED 1842.)

HOLDERS of mining shares DIFFICULT OF SALE in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

ROCHE CONSOLS.—The purchase of these shares is PARTICULARLY RECOMMENDED. The mine promises to take rank amongst the best tin mines in Cornwall. GREAT ROYALTON (Tin) should also be bought. Bankers: Metropolitan Bank.

MR. W. H. BUMPUS, STOCK AND SHAREDEALER,
44, THREADNEEDLE STREET, LONDON, E.C., has FOR SALE the following SHARES, free of commission:—

50 Australian Uni., 11s.	70 Kelpie, 3s. 9d. prem.	35 Pen' Allt, 10s.
50 Bwdrain Con., 24s 6d.	100 Frontino, 7s.	15 Roman Grav., £14½.
20 Carn Camborne, 42s.	50 General Brazilian,	20 So. Aurora, £6½.
100 Chontales, 11s. 3d.	10 Great Laxey, £17.	15 So. Condurow, £25½.
20 Chiverton, 17s.	30 Gr. No. Laxey, 11s 3d.	15 Sweetland Cr., £4½.
50 Drake Walls, 20s. 6d.	10 Great Vor, £8½.	5 St. John del Rey, £30½.
20 Don Pedro, £2 17s. 6d.	15 Hington Down, £2½.	100 Taguairi, 20s.
10 East Caradon, £5 1s 3d.	25 Marke Valley, £7.	15 Tankerville, £13½.
5 East Lovell, £27.	20 North Crofty, £2½.	60 Van Consols, 33s.
10 Eberhard, £37½.	50 New Beldon,	50 West Maria, 26s. 6d.
15 East Grenville, £2½.	30 Prince of Wales, 23s.	5 W. Chiverton, £32½.
	2 Providence, £22½.	25 W. Prince of Wales,
	20 Plympton, 30s.	2s. 6d.
	25 Perkins Beach,	

W. H. B. transacts business in every description of shares at the best market prices, and free of commission.

Daily Price-List free on application.

Bankers: National Provincial Bank of England, E.C.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER, 19, THROGMORTON STREET, LONDON, E.C.

Every description of shares BOUGHT and SOLD at the best market prices.

MR. C. POWELL, STOCK AND SHAREDEALER, 78, OLD BROAD STREET, LONDON, E.C.

MR. JOHN RISLEY, STOCK AND SHARE BROKER, 77, CORNHILL, LONDON, E.C.

Bankers: London and Westminster, Lothbury.

MR. JAMES STOCKER, STOCK AND SHAREDEALER, 2, CROWN COURT, THREADNEEDLE STREET.

SHARES FOR SALE (many others not inserted) for cash or account:—
10 Sweetland Creek, £4
5 Taquairi, 4s. pm.
3 Wheal Buller, £6½.
5 East Pool, £13½.
5 Wt. Chiverton, £33.
10 Great Laxey, £16½.
30 Uni. Mexican, £5½.
50 Wt. Drake Walls, 5s 9d.
5 Great Vor, £8½.
5 East Lovell, £27.
25 Van Consols, 33s.
20 So. Aurora, 32s 6d pm

Bankers: London and Westminster, Lothbury.

IMPORTANT TO INVESTORS IN BRITISH AND FOREIGN MINES, RAILWAY STOCKS, and other Securities of all descriptions.

Dividends at the rate of 5, 10, and 15 per cent.

Consult Mr. JOHN B. REYNOLDS' SPECIAL LIST OF INVESTMENTS. Sent free by post on application to JOHN B. REYNOLDS, Stock and Share-dealer, 70 and 71, Bishopsgate-street Within, London, E.C.

MR. THOS. J. BARNARD'S MINING OFFICES, 175, 176, 177, and 178, PALMERSTON BUILDINGS, OLD BROAD STREET, LONDON, E.C.

REGISTERED OFFICES OF
THE QUEEN SILVER AND COPPER MINING COMPANY (LIMITED).
THE KING SILVER AND COPPER MINING COMPANY (LIMITED).
THE VIRTUOUS LADY MINING COMPANY (LIMITED).

PRICES OF SHARES THIS DAY.—QUEEN, 50s.; KING, £1 2s. 6d.; VIRTUOUS LADY, 30s.

The most unprecedented success of the VIRTUOUS LADY for tin and copper, and the QUEEN and KING for silver, tin, and copper, blended with the amalgamation works, introduced for the extraction of silver from the lowest class silver ores upon the most scientific principles, place these properties before the public, not as a speculation, but as a mining investment. The future sales of ore will prove its intrinsic value. The lists of shareholders include the nobility, clergy, gentry, and professional and influential business men throughout England.

Dated April 14, 1871. THOS. J. BARNARD, Secretary.

MR. HENRY MANSELL, STOCK AND SHAREDEALER, 34, GREAT WINCHESTER STREET, LONDON, E.C.

EAST LLANGYNOG MINING COMPANY (LIMITED).—This mine is opening out beyond the most sanguine anticipations. The shares have been in good demand. A large sale of lead will soon be made. Mr. H. M. strongly advises the immediate purchase for a great rise from present quotations, and can offer 50 shares (or part of same), at £2 15s. each net.

West Jewell, Taquairi, South Condurow, Great Vor, and Terras recommended.

A Daily List of Closing Prices sent to clients free on application.

Bankers: London Joint-Stock Bank.

JOHN LEAN, M.E., AND CO., STOCK AND SHARE DEALERS, 5, AUSTINFRIARS, OLD BROAD STREET, LONDON, E.C.

J. L. late manager of Silver and Copper Mines, Chili, and more recently from Cornwall, has had long experience in gold mining, and is thoroughly conversant with the Spanish and Portuguese languages.

Gold, Silver, and other Metallic Mines examined, surveyed, and reported on at home or abroad.

Stocks or shares negotiated in every kind of available security. We have advised the purchase of EAST LLANGYNOG shares from the commencement. Our clients who have purchased will only have to regret that they had not have taken a larger interest in the property. We need not speak of the improvements in the mine. The future sales of ore will prove its intrinsic value. We can now offer a few shares at £2 15s. for prompt reply.

JOHN LEAN and Co., 5, Austinfriars, London, E.C.

MESSRS. WM. MARLBOROUGH AND CO., 29, BISHOPSGATE STREET WITHIN, LONDON, E.C. (Established 15 years), have FOR SALE the FOLLOWING SHARES at prices annexed:—

50 Aberdunant,	50 East Llangnog,	20 Sweetland, £4 1s. 3d.
50 Almaden, 21s. 6d.	30 East Seton, 27s.	10 So. Condurow, £5 13
50 Australian Uni., 10s 3d.	20 East Virgin, £3 14s	10 South Merrill, £23½.
20 Bedford United, 24s.	20 Frank Mills, 25s. 6d.	20 South Anzora, £25½.
20 Bronfloyd, 48s. 9d.	50 Frontino, 6s.	1 St. Francis, £38½.
30 Bwdrain Con., 25s	5 Great Laxey, £16 11 3	13 Tankerville, £14.
20 Bwch Consols, 36s 6d	20 Great Lovell, 26s. 9d.	2 Tincroft, £49½.
30 Bora, £25½.	30 Gr. No. Laxey, 13s 9d	50 Terras,
20 Chiv. Moor, £2½.	10 Great Vor, £8½.	50 Taquairi, 4s. pm.
30 Chiverton Val., 35s	20 Hington, £2½.	5 Van, £26½.
25 Cefn Consols,	25 Lovell Consols,	40 Van Consols, 33s 9d.
5 Caerphilly Coly., 41s.	5 North Roskear, £11.	25 West Jewell,
5 Cook's Kitchen, £22½.	20 North Crofty, £2 11 3	50 West Godolphin, 15s.
100 Drake Walls, 19s. 3d.	10 North Pool, 15s. 9d.	5 W. Chiverton, £32 8 9
1 Devon Consols, £87½.	50 New Beldon, 15s. 6d.	20 W. Grenville, £4 18 9
50 Don Pedro, £2½ pm.	50 Pennerley,	50 W. Caradon, 15s.
100 Eclipse, 4s. prem.	1 West Seton, £130.	1 West Merion, £25½.
50 E. Parys Uni., 39s. 6	50 W. Drake Walls,	1 Wheal Jane, £45.
5 East Lovell, £26 18s 9	20 Prince of Wales, 23s.	50 W. Pant-y-go, 14s 9d
10 East Pool, £13½.	5 Providence, £31½.	50 West Esgair Lie.
	50 Princes of Wales, 4s 3	20 W. Tankerville, £2 17 6
	50 Rhydallog,	
	5 Roman Grav., £14½.	
	1 South Caradon, £21½.	

MR. GEORGE BUDGE, STOCK AND SHAREDEALER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 21 years), is a SELLER at net prices of:—

3 Pandarves, 6 West Chiverton, 20 Trevarrack, 100 Prince of Wales, 4 Minera, 25 Roman Gravels, 15 Rose and Chiverton, 2 Devon Great Consols, 200 West Cumberland, 80 Nangiles, 4 West Frances, 15 Polbreen, 10 West Jewell, 30 Wheal Grenville, 100 West Pant-y-go, 80 East Chiverton, 35 South Herodsfoot, 75 Wheal Crebor, 1 Dolcoath, 50 Aberdunant, 5 South Crofty, 100 Great Wheal Lovell, 40 Great Vor, 120 Guerrero, 40 East Seton, 50 Drake Walls, 30 East Grenville, 40 Great Retallack, 150 Anglo-Brazilian, 100 General Brazilian, 40 Alamillos, 200 Port Phillip.

SPECIAL BUSINESS in Taquairi, South Aurora, West Basset, Tankerville, Trevarrack, and Roman Gravels.

THE SHROPSHIRE LEAD MINES.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," &c., of Friday, April 14, No. 630, contains important information on the leading Lead Mines of Shropshire, viz.:—
Roman Gravels. West Tankerville. Pennerley.
Tankerville. Bog.
And the leading Tin and Copper Mines of Cornwall.

MR. PETER WATSON, STOCK AND SHAREDEALER, 79, OLD BROAD STREET, LONDON, E.C.
Bankers: The Alliance Bank, and Union Bank of London.

THE SHROPSHIRE LEAD MINING DISTRICT.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," &c., of Friday, April 21, No. 631, will contain a further continuation of the Review of the Shropshire Lead Mining District.

MR. W. H. CUEL, L. No. 42, CORNHILL, LONDON, E.C.

Daily price-list on application.
PERRAN WHEAL VYVYAN LEAD MINE (LIMITED).—Mr. W. H. CUEL will be happy to receive applications for these shares. Full particulars personally or by post; present price, 10s. to 12s. 6d.

MR. T. A. MUNDY, STOCK AND SHAREBROKER, 38, BISHOPSGATE STREET WITHIN, E.C.
Bankers: City Bank.

MR. Y. CHRISTIAN, STOCK AND SHAREDEALER, 11, ROYAL EXCHANGE, E.C.
Bankers: Bank of England.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER, No. 30, GREAT ST. HELEN'S, LONDON, E.C., transacts business at net prices in every description of security.

Buyer or seller of shares at the closest prices in Bronfloyd, Bwch Consols, Fedw, South Darren, East Seton, West Chiverton, and Frank Mills. SPECIAL BUSINESS in Chiverton Valley, Cafartha, Great Lovell, West Godolphin, Llywernog, Rhydallog, Providence, Taquairi, and West Tankerville.

MESSRS. W. DUNN AND CO., STOCK AND SHAREDEALERS, 3 AND 4, GREAT WINCHESTER STREET BUILDINGS, LONDON, E.C.

Bankers: National Provincial Bank of England.

FOR SALE, at prices affixed:—
20 Cashwell, £3.
5 Eberhardt & Aurora, £36 10s. ex new.
20 Great Rock, £1 5s.
50 Great So. Chiverton.
25 Great Wheal Lovell.
10 No. Crofty, £2 7s. 9d.
40 Rhydallog.
10 Roman Gravels, £14½.

SPECIAL.—Messrs. DUNN and Co. invite application from intending purchasers of shares in the BOG and in the PENNERLEY MINES, as they have special business therein. They have also numerous orders for business in ROMAN GRAVELS and RHYDALLOG MINES.

SILK AND CO., STOCK AND SHARE BROKERS, 32, REGENT STREET, PICCADILLY, W.

We are prepared to negotiate the purchase or sale of STOCKS and SHARES at the closest market prices, for CASH only.

FRANK LIMMER, Secretary.

GEORGE BEDFORD AND CO., 10A, KING'S ARMS YARD, E.C., SWORN BROKERS, BUY and SELL all classes of SECURITIES at the closest prices, and, from many years' experience, are prepared to give advice to Investors in Railways, Banks, Foreign Bonds, and British and Foreign Mines.

MR. H. B. RYE, STOCK AND SHAREBROKER, 77, OLD BROAD STREET, E.C. (Established Twenty-five Years), is a BUYER or SELLER of the following shares:—

West Basset.	South Crofty.	Margaret.
Cook's Kitchen.	St. Ives Consols.	Carn Brea.
East Lovell.	West Chiverton.	Eberhardt.
Great Vor.	Tincroft.	Roman Gravels.
North Crofty.	Kitty (Leland).	Carn Camborne.
South Condurow.	West Frances.	Dolcoath.
South Anzora.	Uny.	

PENDARVES UNITED.—An offer wanted for a share, and no reasonable one will be refused.

N.B.—With strangers, references exchanged.

THE CITY EXCHANGE MINING AND INVESTMENT OFFICES, 32, NEW BROAD STREET, LONDON, E.C.

ALFRED FISHER, MANAGER.

It is a source of congratulation to us that we have advised the purchase of shares in the EAST LLANGYNOG MINING COMPANY (LIMITED), now commanding the greatest attraction in the mining market. Thousands of shares have been transferred during the last month. The yield of lead from the different lodes are beyond calculation, and another point is expected to come off soon, when it is anticipated that the lodes will be cut at the junction, when, no doubt, a mine of wealth equal to the Llangynog will be opened up. We have 55 shares that we can offer at £2 15s. if applied for immediately.

A. FISHER and Co., 32, New Broad-street, London, E.C.

Twenty-six Years' Experience.

MR. F. W. MANSELL, STOCK AND SHAREDEALER, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.
Daily List of closing prices in British and Foreign mines every evening (free).
References exchanged. Bankers: London Joint-Stock Bank.

PERRAN WHEAL VYVYAN SILVER-LEAD MINE.—MR. F. W. MANSELL calls the special attention of the public to the advertisement of this mine. Prospectuses, with every information, forwarded on application.
1, Pinner's-court, Old Broad-street, E.C.

MR. W. TREGELLAS, 122, BISHOPSGATE STREET WITHIN, E.C., is prepared to transact BUSINESS in all descriptions of marketable SHARES on the most favourable terms, and has SPECIAL BUSINESS in the leading Foreign Mines.

The reports from the Eclipse Mine are most favourable, and point to a great rise in the price of shares.

ENDEN AND CO., STOCK AND SHAREDEALERS, BRITISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES, 85, GRACECHURCH STREET, LONDON, E.C.

From the great prospects of EAST LLANGYNOG this week we confine our space to the following speciality.

IMPORTANT DISCOVERY OF LEAD IN WALES.

Capitalists and Investors should embrace this opportunity and purchase immediately (at the present low price) shares in the EAST LLANGYNOG LEAD MINING COMPANY (LIMITED). It is confidently believed that colossal fortunes will be made by those who buy and hold their shares for dividends.

From the great yield of ore, solid rocks of lead are being broken, varying from 1 to 8 cwt. each. The lodes, five in number, are productive at all their points of operations. This very successful company has only recently been formed, and they have already a parcel of lead, about 50 tons, preparing for the market; besides, the agent reports a great discovery just made. In cutting under the old men's workings, from a level driven into the mountain, at a depth of 150 ft., they came upon a course of lead standing 40 fathoms in length and whole to surface, with hundreds of tons of lead discovered, which can be broken down and sent to market in due course, and will, no doubt, enable the company, at a very early date, to place the mine on the Dividend List.

The adjoining mine (Llangynog) has proved to be the richest mine in the Principality. It has paid £800,000 in dues alone, and has yielded lead to the extent of £6,000,000 sterling, and it is fairly anticipated that the "East Llangynog" will prove a mine of no less importance than its predecessor. These shares must have a considerable advance in price, and are as safe as an investment. We strongly advise their purchase.
Messrs. ENDEN and Co. can offer some shares at 27. 15s. each, if applied for at once. Address, 85, Gracechurch-street, London, E.C.

MR. CHARLES THOMAS, MINING AGENT, AND GENERAL SHAREDEALER, 3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition. Now ready, post free, sixpence.
INVESTMENTS AND SPECULATIONS
FOR 1871.
CHARLES THOMAS, 3, Great St. Helen's, London.

New edition, 1870, price 6d.,
SELF HELP TO PATENT LAW
Also, price 1s.,
COLONIAL AND FOREIGN PATENT LAWS.

Published at the Office for Patents, 4, St. Ann's-square, Manchester, by GEORGE DAVIES, C.E. (late John Davies and Son).
Established 1835.

MESSRS. G. LAVINGTON AND A. PENNINGTON, 44, THREADNEEDLE STREET, E.C., STOCK AND SHAREDEALERS

have SPECIAL BUSINESS in the undermentioned:—
Pacific Gold. East Pool. West Esgair Lie.
Sweetland Creek. Tankerville. Providence.
South Caradon. Roman Gravels. Bronfloyd.
Dolcoath. Tincroft. Margaret.

Sellers of the above are invited to communicate with delay.

TO INVESTORS.—NOW READY.

LAVINGTON AND PENNINGTON'S "MONTHLY RECORD OF INVESTMENTS," containing an exhaustive Review of the British and Foreign Stock and Share and Money Markets, &c., with an enumeration of safe investments, paying from 10 to 20 per cent. Price 6d. per copy, or 5s. annually. G. LAVINGTON and A. PENNINGTON, 44, Threadneedle-street, London, E.C.

MR. JOHN MOSS, STOCK AND SHAREDEALER, ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.
Bankers: City Bank, Finch-lane, E.C.

MR. C. A. POWELL, BRITISH AND FOREIGN STOCK AND SHAREDEALER, No. 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.

Buyer or Seller of every description of negotiable securities at current price net.
Bankers: City Bank, Finch-lane, E.C.

CALDBECK FELS, NORTH TRESKERBY, AND FRONTINO.
Mr. C. A. POWELL has SPECIAL BUSINESS in these SHARES.

CWM VRON.—MR. C. A. POWELL begs to direct SPECIAL ATTENTION to the VALUABLE PROPERTY. He has business in the shares, and is prepared to furnish all particulars relating to the company upon application.

BARTLETT AND CHAPMAN, STOCK AND SHARE DEALERS, 36, CORNHILL, LONDON, E.C.

Dividend and Progressive Mine Shares of every description bought or sold at close market prices.

Specially recommended for immediate investment.—The STAFFORDSHIRE BRICK and TILE COMPANY'S shares, at par (£2 fully paid). No liability. Safe for dividends of 25 per cent. Full particulars will be forwarded on application. Letters and telegrams promptly attended to.

MR. T. E. W. THOMAS, STOCK AND SHAREDEALER, 3, GREAT WINCHESTER STREET BUILDINGS, E.C.

Business operations in Mining Shares negotiated at close market rates.

Daily Price-List on application.

Parties holding mining shares not having daily quotations, can learn their correct market value on application to Mr. THOMAS.

MESSRS. E. BREWIS AND CO., STOCK AND SHARE DEALERS, 18, BISHOPSGATE STREET WITHIN, LONDON, E.C.

(Opposite the National Provincial Bank of England.)
Telegrams promptly attended to.

Bankers: The Alliance Bank, London, E.C.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER, 224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

MESSRS. J. HUME AND CO., STOCK AND SHARE BROKERS, 74, OLD BROAD STREET, LONDON, E.C.

Transact business in every description of Stock and Mining Shares at closest prices.

Capitalists wishing to buy or sell will find it advantageous to communicate with Messrs. H. and Co.

EBERHARDT AND AUROHA.—We bought for clients from £3 prem. and upwards, and the result gives thousands of pounds profits. Shares are now £35, £37½, ex new, and it is expected they will shortly exceed £50 per share.

TAQUAIRI, ECLIPSE, SWEETLAND CREEK, DON PEDRO.—We have business to transact in these and other foreign mines.

SOUTH CONDUROW, EAST LOVELL, GREAT VOR.—Messrs. H. and Co. can advise as to investing or otherwise in these mines.

BOG, PENNERLEY.—These should be bought promptly for a rise, being going concerns, and making large returns of lead.

The "Investment Record and Mining Review" for April now ready. 6d. per copy, 5s. annually.

Bankers: The London Joint-Stock Bank.

LONDON MINE AGENCY (ESTABLISHED 1848), 50, BISHOPSGATE STREET WITHIN, LONDON, E.C.

MR. HENRY PEET respectfully directs the attention of his clients to the above address, to which he has removed.

Every description of stocks and shares bought and sold at the closest quotations.

MR. PEET is prepared to dispose of, on most advantageous terms, a share in the BUARTHAN SLATE QUARRY, near Dolwyddelan, in the Pembrokeshire district, and invites the attention of capitalists to the details and reports, which may be seen at his offices.

The following are strongly recommended as desirable investments.—Roman Gravels, Okel Tor, Marke Valley, Tankerville, West Tankerville, West Esgair Lie (in which there has been an important discovery), Florence and Tonkin United Mines, Sweetland Creek, Birdseye Creek, Mary Ann, Tincroft, Hington Down.

The agency of the Florence and Tonkin United Mines (Limited) has been removed to Mr. PEET'S offices. The unallotted shares are now to be issued at 2s. per share, an early application for which is invited. Full information, reports, and plans may be had at the—

LONDON MINE AGENCY, 50, BISHOPSGATE STREET, LONDON, E.C.

HOKEE AND CO., STOCK AND SHAREDEALERS, LIFE, FIRE, AND MARINE INSURANCE AGENTS, 9, UNION COURT, OLD BROAD STREET.

We recommend immediate investment in the EAST LLANGYNOG LEAD MINING COMPANY (LIMITED), the shares in which are in great demand; as we anticipated, have advanced in price, and are still rising. Important discoveries have been made during the last few days.

At ABERDUNANT a fourth parcel of lead has been sent to the market. The mine looks more promising than ever throughout.

Investors are advised to purchase quickly into selected Mexican mines. Confidential information to clients only.

At the rate of One Guinea per annum, we give Investors information on legitimate mining properties in the United Kingdom.

Our Circular for April contains mineral statistics of the highest value, as well as a list of approved mining and other investments. Intending Investors should apply for a copy immediately. Price 6d., free to clients.

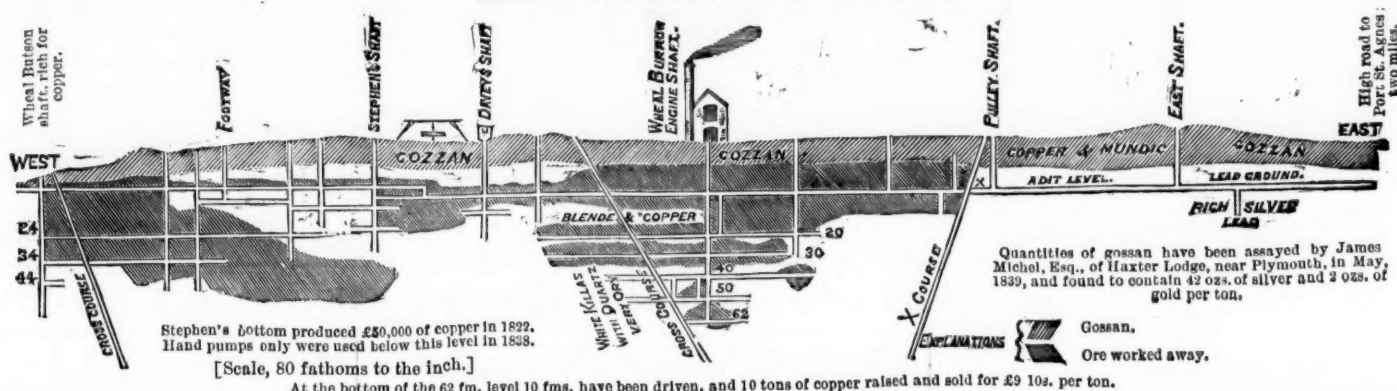
CWM RICKET LEAD MINING COMPANY (LIMITED).—We can offer 40 shares in this undertaking at £4 per share. The Cwm Ricket is near the Van Mine, the shares of which, within a very short time, advanced from £4 5s. to over £53.

FOR SALE:—20 Aberdunant; 5 Minera, offer wanted; 30 Guerrero Gold; 30 New Rosario, fully paid, £1 5s.; 60 Harwood Consols, 5s.; 40 Cwm Ricket, £4; 30 New Clifford, offer wanted; 20 East Llangynog; 20 Brynambor, 12s., offer wanted; 20 El Chico; 10 City Offices.

FOR SALE.—A splendid FREEHOLD PROPERTY, near TUNBRIDGE WELLS. Particulars on application.

HOKEE and Co., 9, Union-court, Old Broad-street, London.

WHEAL BURROW AND WHEAL BUTSON—LEAD, BLENDE, AND COPPER MINES. EAST AND WEST SECTION ON THE MAIN LODE.



Wheal Burrow and Butson Consolidated MINING COMPANY (LIMITED).

Comprising two important Lead, Blende, and Copper Mines, near St. Agnes, Cornwall,
ALSO KNOWN AS WHEAL DAVEY,
IN THE MANOR OF MITHIAN, ADJOINING PERRANZABULOE.

To be incorporated under the Companies Acts, 1862 and 1867, limiting the liability of shareholders to the amount of their respective subscriptions.

PRELIMINARY CAPITAL, £13,000,

Divided into 80 "A," or 10 per cent. preference, shares, and 50 "B," or deferred, shares, of £100 each.

No allotment will be made unless at least 50 A shares are subscribed for.

Calls on the A shares will be payable as follows, viz.:—£2 10s. on application; £27 10s. on allotment; £30 in two months after; £20 in four months, and £20 in six months.

The A shares will be entitled to a preference dividend of 10 per cent. on the amount paid up, out of the profits made in each year; after payment of which the profits will be equally divided between the A and B shares.

The B shares will be issued as fully paid-up to the vendors of the mines, and will represent the consideration for the lease or license, no cash being required for this purpose.

No promotion money will be charged, and in the event of no allotment being made, all preliminary expenses will be paid by the vendors, and the £2 10s. paid on application returned without deduction.

The Articles of Association will be "Table A" of the Companies Act, 1862.

BOARD OF DIRECTORS.

CHAIRMAN—CHARLES MORRIS, Esq. (Chairman of the Fortuna Lead Mining Company, Limited, and Director of the Bank of Australasia).

S. E. ILLINGWORTH, Esq., 9, Norfolk-crescent, Hyde-park.

J. W. WILLIAMSON, Esq. (Director of the United Mexican Mining Company).

LOCAL DIRECTORS.

WILLIAM HORTON DAVEY, Esq., Bockym, Helstone, Cornwall.

GEORGE S. ARNALL, Esq., Merchant, Redruth, Cornwall.

BANKERS—Messrs. JOHN MICHAEL WILLIAMS and Co., Redruth (West Cornwall Bank).

Messrs. GLYN, MILLS, CURRIE, and Co., 67, Lombard-street, E.C. (London Agents for the West Cornwall Bank).

SOLICITORS—JAMES ARTHUR MORGAN, Esq., F.G.S., 47, Finsbury Circus, E.C.

AUDITORS—Messrs. J. WADDELL and Co., New Poultry Chambers, Poultry, E.C.

MANAGER AND SECRETARY—HENRY VON USTER, Esq., F.G.S.

OFFICES (pro tem.)—47, FINSBURY CIRCUS, E.C., LONDON.

PROSPECTUS.

This company is formed to acquire a lease or license of the above mines for 20 years at a royalty of 1-18th, or a rent of £20 per annum, morging in the royalty; to purchase and erect the machinery necessary for unwatering these mines to their present depth of about 87 fathoms, and for further sinking the shafts and winzes, and extending the levels, and raising and dressing the ores of lead, blende, and copper which will be laid open as soon as the mines are drained to the 20, 30, and 40 fathom levels.

The geological and geographical position of these mines is unquestionable, being within the celebrated Chiverton group of silver-lead mines, about three miles west of the rich West Chiverton (paying 80 per cent. per annum dividend), the lodes of which pass through the whole length of Wheal Burrow and Butson. The engine-shaft (87 fathoms deep) is near the centre of the two mines within two miles of the Port of St. Agnes, and seven miles of either Truro or Redruth Railway Station by excellent roads.

These mines were worked to great profit some years ago, and were discontinued in consequence of the death of one of the owners, and of the produce turning mostly into jack, or blende (sulphide of zinc, or zinc ore), which at that time was unsaleable when associated with a certain percentage of copper, and when free from copper brought only £1 5s. to about £2 per ton.

The present price of the blende, or zinc ore, which can be raised even before the mines are completely unwatered, is calculated to be not less than £15s. per ton, there being now no difficulty in treating zinc ores mixed with copper or lead. An assay made by Messrs. Johnson, Matthey, and Co., in June, 1870, produced—zinc 48.50, copper 2.25, and silver 1.060 oz.

Wheal Butson produced above and about the 32 fm. level, with imperfect machinery, upwards of £50,000 worth of copper ore.

Precipitate of copper to the value of many thousands pounds was collected from the mine water by the simplest possible method. With improved appliances the quantity can easily be increased. This is important, not only as a source of revenue, but as a proof of very large deposits of copper ore. The gossan found on the back of the main lode, and of which many thousands tons can probably still be raised, has been largely worked away, and some assays of it have produced 42 ozs. of silver and 2 ozs. of gold, or a money value of about £18 per ton.

By the accompanying reports it will be seen that a return of from 100 to 200 tons of jack (zinc ore) can almost immediately be raised monthly, which will give a handsome profit, with every probability of speedy improvements in quantity and quality.

The greatest value of the blende, however, is that, according to the experience of late years in all the most successful mines, such as the Van, and the Dyllite, in Wales, the West Chiverton, and others in Cornwall, this ore has been the sure precursor of large deposits of lead.

In the eastern part of Wheal Burrow many tons of silver-lead ore have been raised and sold from the adit, without any level having been driven in the very extensive virgin ground. There can be no doubt but that under the adit the lead will greatly improve.

Referring to the chances of immediate and valuable discoveries, the following extract from the report by Captain Samuel George, M.E., who recently inspected part of these mines, is of importance:—

"I find, to my surprise, east of the engine-shaft the lode, all above and below, so far as the water would allow, has been all taken away by tributaries since the mine ceased working. At the extreme end of the workings eastward (see E. and W. Section *), in engravings which accompany the prospectus) there is a cross-course which has never been cut through. This could be done at once, when I have no doubt the lode will be found as productive on the other, or eastern side, as it is proved on the western side."

Besides the benefit of the ores already discovered, this company will have the advantage of shafts and levels which have been made at an expenditure of time of at least five years, and, according to a carefully detailed and moderate valuation (which can be seen at the office), of the money value of £23,000.

To illustrate the spirit with which the operations have been commenced, it suffices to quote from the detailed valuation that the north adit is of the length of 350 fathoms, the south cross-cut adit of 234 fathoms, and the adit level on the main lode 627 fathoms, making in all 1211 fathoms, or one and one-third of a mile of drive at (say) 25 fathoms from surface, all of full height and width, and executed in the best miner-like manner.

The capital now sought is chiefly required for the purchase of machinery, which can be bought good second-hand, in consequence of the depression of the price of copper, at about one-third of its original cost. The value of this machinery will, with the revival of mining in Cornwall, considerably increase.

Responsible engineers will be glad to enter into contracts to supply pumping, crushing, and dressing machinery, and to execute the whole of the erections, included in a detailed estimate (also to be seen at the office) for the sum of £3000.

The accompanying reports are by practical miners, some of whom worked in these mines before they were discontinued.

The ultimate object of the company is, after the mines have been fully reopened, and sales of ore made, which can be accomplished in about four months after the erection of the necessary machinery, to form an enlarged company with a capital adequate to purchase of this company the lease, machinery and discoveries, with the reserves of ores, at a price which shall fairly represent their value, as a going concern, but this will only be carried out by a special resolution of the shareholders.

It is confidently anticipated that such sales will produce a large profit even at a formal valuation.

The adoption of table A. of the Companies Act, 1862, as this company's Articles of Association, is a guarantee that every possible care is taken to protect the interest of the shareholders, such table having been prepared for and approved by Parliament.

Application for shares in the annexed form may be made to the secretary or solicitor at the temporary offices of the company.

The only agreement affecting the company is dated the 16th day of March, 1871, and made between the vendors of the one part and the trustees for the company of the other part.

REPORTS.

Captain SAMUEL GEORGE, Mining Engineer, Redruth, Cornwall.

Redruth, Cornwall, July 21, 1870.—At your request, I have carefully inspected, both underground and surface, "Wheal Davey," better known as "Wheal Burrow and Butson." Mines, situated in the manor of Mithian, in the parish of St. Agnes, Cornwall. I find the set about 550 fathoms east and west on the run of the lodes, which are eight in number, and about 400 fathoms north and south. In consequence of the mine being full of water to the adit level, I have only been able to survey this part of the mine, and not without some difficulty. The adit, which is about 25 fathoms from surface and driven on the main lode, I find to my surprise, east of the engine-shaft, the lode all above and below, so far as the water would allow, has been taken away by tributaries since the mine ceased working. The I situated as a very important feature for the ground below, as there is no level below the adit in this direction for upwards of 200 fathoms in length. When levels are continued from the engine-shaft at a greater depth I consider you have every reason to expect profitable ore ground and in large quantities. At the extreme end, or workings eastward, there is a "cross-course" which has never been cut through; this could be done at once, when I have not a doubt the lode will be found as productive on the other, or eastern side, as it is proved on the western side. The engine-shaft is sunk to the 62 fathom level perpendicular. Judging from the strata of ground in all the other shafts I think you will find it firm, and in good condition. From information I have gained, which I believe to be correct, the last working of the mine was principally confined west of the engine-shaft, or western part of the mine, and the ground which has been opened out at the deep levels has been worked very little indeed, particularly eastward, which I consider the most important part of the property. The machinery which will be required; say, nothing less than a 60-in. pumping engine; mine engine-house, which is at present standing, must be re-built; the stack or chimney is good. This engine should be all until the mines are cleared up to bottom; horse whims will be sufficient for all winding purposes, in fact, all surface work should be limited to what is only required. You must bear in mind at present there is no machinery whatever on the property, but I should say £4000 to £5000 will be fully sufficient to get the mines in full working order, but with this sum it will require care, judgment, and economy, and practical knowledge of the mines and the celebrated Chiverton district, and looking at the strata of ground which are quite congenial to lead, copper, and blende, and the amount of work done in the eastern part of the mine since it ceased working by tributaries on their own account, I should say you have every chance of success, and that you are safe in recommending it to your friends. In fact, I know of no better piece of mining ground at present idle in the county, and provided it was placed in safe hands to manage in this county, I should not hesitate to take an interest in the undertaking myself. S. GEORGE, M.E.

* NOTE.—See * in the east and west section.

Mr. JOHN CHRISTOPHER, Miner and Farmer, St. Agnes, Cornwall.

WHEAL BURROW AND BUTSON MINES.

St. Agnes, April, 1870.—The following is my report on the above mines. The mine contains 10 or 12 levels, and two or three cross-courses. In the last working a large quantity of copper and blende was raised, but owing to blende bringing only a very low price at that time, the mines were abandoned, leaving most excellent prospect for further development. The depth of the Wheal Burrow engine-shaft is 62 fathoms under adit, or 86 fathoms from surface. At this depth a great improvement took place both in the character of the strata and the value of the copper, which fetched £9 10s. 6d. per ton. A large quantity of jack (blende) and copper mixed, which was then only worth from 20s. to 30s. per ton, can be and is sold at from £4 to £5 per ton. The lodes in this mine have proved productive from Tywarthayle, 2½ miles to the west, to East Chiverton, including West Chiverton, Chiverton Moor, and Chiverton Valley, to the east, a distance of another 2½ miles, making together 5 miles that these lodes have been partially proved and found productive. The work already done and available to a new company is worth at least £20,000. The great gossan (or main) lode is from 3 to 10 ft. wide, and has produced from the gossan silver and gold. Under this gossan thousands of tons of copper and blende have been raised and sold; in fact, the lode, after the engine ceased working, raised at and above the adit level, upwards of 2000 tons of copper and jack, and also extended the adit south of the engine-shaft 150 fathoms, and opened several lodes of great promise, which will be found valuable for a new company to operate on. I would advise a 50 or 60 in. cylinder engine, 10 ft. stroke, and 12 in. pitwork, to clear up the engine-shaft, also the Shop, Tonkin's Williams, and Davey's shafts. You will then be in receipt of a large quantity of jack mixed with copper at once, that will pay the monthly cost, if not, have a profit. At the eastern part of the mine the strata are quite altered from copper bearing to that of silver-lead, which is near to Great West Chiverton silver lead mine, which adjoins this mine. In the last working large quantities of precipitated copper were produced by laying down scrap iron in the adit and let the water pass over it. I would now recommend tanks to be fixed at surface, and then let the copper water run from one to the other. The water afterwards would serve for condensing and dressing purposes. In making the whole bearings belonging to this mine into account, the present shallow depth, the number of lodes left unwrought, and the several shafts already sunk to resume the work quickly, the ore already laid open to be taken away after the engine is again erected, the mine drained and cleared, I firmly believe this mine to be one of the surest to be made to pay, if properly developed, now left unworked. To show my confidence in the undertaking, provided a company will work it carefully and legitimately, I shall feel pleasure to take a good interest in this mine as a shareholder. J. CHRISTOPHER.

Report by Mr. WILLIAM TIPPET, now a Farmer on Wheal Davey Estate, who was a Miner, and worked in these Mines under the Messrs. DAVEY at and above the Adit Level. Wheal Davey, near Mithian, St. Agnes, June 4, 1870.—I worked in these mines under Messrs. Davey and Co. for some time at and above the adit level lode, and

worked on the "White Jack Lode," south of the engine-shaft, lode 2 feet wide; 7 ft. it was solid as a brass pan, but I did not work there until this part of the mine was stopped. The water on this lode was drained 10 fathoms under adit by means of a horse-whim and pumps. I also worked on the great gossan lode about the same time. There is a large quantity of jack and copper left in the mine untouched, because it would at that time not sell when mixed with copper. I believe if the engine were again erected and the mine drained to the 80 fathom level you could raise from 100 to 200 tons of jack monthly. And when you get to the bottom of the engine-shaft you are sure to find a good stratum and high-priced copper. The country around the lode is greatly altered for the better during the last 10 fathoms of sinking. If you can get £4 per ton for jack and copper you will have a first-rate mine almost immediately you get the mine drained to the 30 fathom level. WILLIAM TIPPET.

Mr. PETER HARRIS, Miner and Tributer, Goonbell, St. Agnes, Cornwall.

REPORT ON WHEAL BURROW MINE.

June, 1870.—I worked as a tubwork man and also as a tributer in this mine for many years. It is about 30 years since the engine ceased working. Since then I worked under Messrs. Davey and Co. (the freeholders) above the adit level, and I know they returned during that time upwards of 2000 tons of copper ore, besides jack (sulphide of zinc or blende). The engine-shaft is sunk to the 62 fm. level under adit, perpendicular. The lode runs into the shaft at the 50, and as the lode underlies south they had to drive south at the 62 to cut the lode. They then turned, and drove west on the course of the lode a few fathoms, and raised several tons of copper ore, which sold for £9 10s. 6d., or £9 12s. 6d. per ton. At the 50 fm. level, round the engine-shaft at the bottom of the mine the character of the country improved, but at this time the mine stopped working in consequence of the death of one of the owners. A cross-cut level is driven north from the engine-shaft at the 40 fm. level, and cut the lode; also another at the 30 and 20, but no lode was raised by that party in the latter levels. In all the other shafts the lode has been cut at the adit level, and at that depth large quantities of copper and jack were raised and sold. No. 1 shaft is the eastern one, which is no deeper than the adit; there the country changed and produced silver-lead; this was done long after the engine worked. No. 2 shaft is to the west of No. 1, and called in the last working the east shaft, which is not deeper than the adit level. There they raised copper and jack. No. 3 shaft is west of No. 2, and formerly called Ladder Road shaft. This is worked east and west, but not deeper than the adit level, and a large quantity of copper and jack has been raised since the engine ceased working. No. 4 shaft is west of No. 3, and called Tonkin's shaft, which is sunk 20 fathoms under adit; very little has been done under adit, but plenty at and above adit. No. 5 shaft is west of No. 4, and called Shop shaft, and north of engine-shaft 24 fathoms; this shaft is sunk 20 fathoms under adit, and not much done under it, but a large quantity of ore taken at and above. No. 6.—This shaft is Quarry shaft, and sunk 10 fathoms under adit, but not holed to any level under adit; here there has been a large quantity of jack and copper taken, and a large quantity of gossan producing silver, some of which is now to be seen at surface. No. 7.—This shaft is called Williams, and sunk 10 fathoms under adit; a lot of old men's workings are about this shaft, and from this to Shop shaft (No. 5). The former party only drove on the soft part of the lode, leaving the main part untouched for 70 fathoms in length. No. 8.—This shaft is called in the last working the DAVEY shaft, and sunk 10 fathoms under adit, and large quantities of copper were raised at the junction of both lodes. Further west is Wheal Butson old mine, belonging to this sett. A flat-roof shaft was sunk, and Burrow engine worked it; here many thousands of tons of copper ore have been raised and sold. The lode at Tonkin's shaft is 10 to 12 feet wide, and a large quantity of copper and jack will be raised here when the mine is again drained at the 10, 20, and 30 fathom levels, and also a large quantity can be raised monthly in other parts of the mine. The machinery consisted of a 60-in. cylinder engine, 10 ft. stroke in cylinder, and 7 feet in shaft; 14-in. pit work; water, 3 strokes per minute in summer, and 4 strokes in winter. There was no crusher erected or jigging machines, and the whole of the dressing of ore was done by hand. There was no drawing machinery; it was all done by horses—three every six hours, in one whim. Many thousands pounds worth of precipitate of copper was procured by causing the water from the mine to run over scrap iron. I know of no such good speculation in the neighbourhood of Mithian as Butson and Burrow Mines. PETER HARRIS.

FORM OF APPLICATION FOR SHARES.

To the Directors of the Wheal Burrow and Butson Consolidated Mining Company (Limited).

GENTLEMEN,—Having paid to the Bankers of the company the sum of £ being a deposit of £2 10s. per share on "A" Preference Shares in the company, I hereby request you will allot me that number, and I hereby agree to accept the same or any less number that may be allotted to me on the terms of the prospectus, and I agree to pay the sum of £27 10s. per share on allotment, and authorise you to insert my name on the Register of Members for the number of shares allotted to me.

Usual signature
Name in full
Residence
Profession

Date.....

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A COMPLETE GUIDE TO THEIR LAWS, USAGES, LOCALITIES, AND STATISTICS.

BY JOHN ROBERT PIKE.

Author of "Facts and Figures," and other works on the Mines of Cornwall and Devon.

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UNITED MEXICAN MINING COMPANY.

SOUTH CONDURROW MINE.

[ADVERTISEMENT.]

SILVER MINING IN ENGLAND—SCIENTIFIC RESEARCHES

It is not generally believed that the mineral wealth of England is a land flowing with milk and honey for either gold or silver, and I am not myself of opinion that the precious metals exist in unmeasured quantities of very rich qualities, but it is proved that occasionally most extraordinary deposits of silver are found, as at Whitby where can be seen a rock of silver ore weighing 84 lbs., one-quarter part of which is pure silver, taken from the Queen Mine, near Calstock, Cornwall. Such a large and rich block is hardly, if ever, found in other noted foreign silver districts, but as a specimen is hardly, if ever, found in our lastling profits from the large quantity of good metal that it yields, it is very simple when deposits of rich silver ores are discovered to find ready buyers for the hands of the large English smelting firms, but the great secret is to turn to profit the masses, the practically almost unlimited quantities, of mineralised materials that abound through the mining districts of England. I know of not only one, but more than one hundred lodes in Devon and Cornwall, varying in

Palmerston-buildings, Old Broad-street, April 13.

MINING—PROMISE AND PROGRESS.

ralphine, and I have been a hardy and profane comparison, the speciality in the value of mining in this country, and the intelligence with which that speciality has been developed, type those higher principles that have outlived the wreck of matter and of power in those instances of greater magnitude. Cornwall, Devon, and Wales illustrate the fact, and while each give increasing mine-promises, combined with proofs of the very fulness of realisation and progress, permit me to recall attention to one evidence of successful operations in the Principality—I allude to East Llangynidr, which, in 1884, was sold for £100,000, and guaranteed to return 10 per cent. in labour and quantity of returns, that cannot be better illustrated and judging from the report of the first ordinary meeting of the company, which took place last week. "The directors think that the shareholders have great cause to congratulate themselves on having obtained so valuable a property," a congratulation accompanied with something more than a hope that at the next meeting they can declare a dividend. In my next I shall endeavour to particularise certain districts and their operations. Sufficient for the present may I close these remarks, and conclude by saying that the general opinion that to mining promise and progress the Journal you so ably conduct, has invariably done its duty.—85, Gracchurch-street, E.C. J. P. KENDALL.

[For remainder of Original Correspondence see this day's Supplement.]

PRICES OF MATERIALS.

As charged at the PROVIDENCE MINES during the following months:—

Description.	November.	December.	January
Hoop iron.....per cwt.	13s. 6d.....	.....	.....
Borer cast steel....."	28 0.....	.....	.....
5 inch patent nails....."	19 0.....	.....	.....
4 inch ditto....."	20 0.....	.....	.....
3½ inch ditto....."	20 3.....	.....	.....
3 inch ditto.....per 1000	4 8.....	.....	.....
Iron shovels.....per cwt.	28 0.....	.....	.....
Steel-point ditto....."	48 0.....	.....	.....
Leather.....per lb.	6.....	.....	.....
Northway timber.....per foot	0 9.....	.....	.....
M. C. coals.....per ton	11 7.....	11s. 6d.....	11s 10d
Best candles*.....per dozen	5 6.....	5 3.....	5 6
Tallow*.....per cwt.	47 0.....	— 3.....	48 0
Grease*....."	12 0.....	.....	.....
Oil*.....per gallon	4 6.....	.....	.....
Powder*.....per 100 lbs.	38 0.....	.....	42 0
Safety fuse*.....per coil	0 4.....	0 4.....	0 4
Rope*....."	42 0.....	.....	.....

* Delivered free of carriage.

"W. B." LEAD MINES.—We are informed that at the end of June next Mr. Sopwith, who for upwards of a quarter of a century has acted as chief agent in the W.B. lead mines in Northumberland and Durham, will cease all connections with them. Mr. Sopwith will then have completed 50 years' work in his profession, and we are sure few men will have better earned their retirement than that gentleman. His life has been one of energy and industry, and although by no means in the aere and yellow leaf yet, his very active and arduous career has not been entirely without effect upon even a naturally healthy, if not robust constitution. During the past winter Mr. Sopwith has suffered somewhat severely from illness, and his medical advisers recommend the cessation of those active duties which he has so long and so honourably performed. The many hundreds of workmen, with the staff generally connected with the W.B. mines, will most sincerely regret the cause of the retirement of one for whom they have every reason to feel the utmost respect and esteem. We trust, however, that in the calm and quiet of a well-deserved leisure, Mr. Sopwith may speedily recruit his energies, and be yet long spared to assist in the promotion of the W.B. mines, which he has so long and so ably managed, and which for so many years taken a deep interest, and by which the district of the W.B. mines in Alnedale, Wardale, and elsewhere have been so greatly benefited. We are

glad to learn that Mr. Beaumont's acquiescence in this arrangement has been of the most generous and friendly character, and marked by lasting and solid proofs of his esteem and regard.—*Hexham Courant*.

THE DOLCOATH MINE—ITS HISTORY.

In 1857 we had the pleasure of presenting the late Capt. THOMAS with a service of plate. He remarked on that interesting occasion:—"It is my decided judgment that it would be a difficult matter to select a better staff for conducting every scientific and practical operation in the mine than the agents with whom I am associated." Gentlemen, those agents are still among us; we have had 14 years further proof of their faithfulness and ability, and they have had 14 years additional experience in the working of our mine. Capt. CHARLES is gone to his reward; we have a son worthy in all respects of such a father, and we have Capts. TONKIN, PEARCE, PROVIS, and BAWDEN. I have much pleasure in giving the usual toast, "Success to Dolcoath: connecting with that the name of our respected manager, Capt. JOSIAH THOMAS, and the other agents of the mine."

[The agents, in responding to their healths, gave much satisfactory information to the shareholders respecting the position and prospects of the mine. Their report is among the Mining Correspondence.]

At a public auction at Webb's Hotel, on Monday, twenty-five Tincroft shares were sold at about 48/ 15s. per share, and four shares in the South Caraden Mining Company at 20s. each.

Meetings of Public Companies.

GREAT LAXEY MINING COMPANY.

The half-yearly meeting of shareholders was held at the London Tavern, on Wednesday, Mr. G. W. DUMBELL in the chair.

The SECRETARY read the notice convening the meeting. The accounts presented showed a balance of assets over liabilities of 86167. 4s. 7d. The general account of receipt and expenditure from Aug. 5 to Feb. 3 showed a credit of 21747. 18s. 1d., after deducting the dividend paid on Sept. 30 and Dec. 30, amounting to 12,0007. The report of the directors was read, as follows:—

The directors of Great Laxey have much satisfaction in meeting their fellow-shareholders, because they consider that the mine has not only maintained its reputation in the past half-year, but has lately disclosed new deposits of ore, by which the reserves are greatly increased, and the future enduring value of the mine more firmly established than ever. From recent valuable discoveries the mine more effectively laid open, but after a short time, when the raisings of lead ore have considerably increased, if not exceeded, the ground is expected to be steadily kept up. It is true that the dividends for the last half-year have been a little less than at some former periods, but that has arisen from causes over which the directors have no control. The returns show an increase in lead ore of 108 tons, but the depressed state of the market for lead, and still more so for spelter, has caused a very heavy loss to the company, whilst at the same time no reduction could take place in the expenses connected with the mine. The directors have no fear for the future; at the same time they do not attempt to lead anyone to suppose that the dividends of any mine can be so certain as never to fluctuate, and they hope that their determination not to declare a greater dividend than the mine has actually earned will, at all events, not lessen the confidence of the shareholders in the directors.

The report of the managers was read, as follows:—

April 6.—In handing you our half-yearly report, we have pleasure in stating that the operations of the mines have gone on satisfactorily, and almost without any interruption, since your last general meeting. The main engine-shaft is now down about 8 fathoms below the 220; the lode maintains its usual size and productiveness, being 6 feet wide, and worth for lead and blende about 6007. per fathom. All the water drains off the lode below the adit level for nearly 1 mile in length, has to be pumped out through this shaft, and this in connection with the hardness of the lode makes our progress in sinking unavoidably slow. The 220 has been driven north 3½ fms., and holed to the sump sunk down on the Welsh side referred to in last report, and the end is now 6 fms. beyond it, but we have not yet succeeded in cutting down the water, so as to enable us to resume the sinking of the Welsh shaft below the 220, caused, we think, by another small slide or over drainage of the lode below the adit level. We commenced a new shaft, further north than the one above referred to, in a lode worth 1207. per fathom, but the water was too quick for us, and we had to discontinue the sinking; if this level is not drained by the 220 shortly, we shall contrive other means to sink the Welsh shaft, so as to hasten the communication between the two shafts, and also to more speedily open out the ore ground we have to the north of the Welsh. The 210 fm. level end has been driven north 11 fathoms in a lode varying in value from 5007. to 6007. per fathom, and the present end is worth 1007. per fathom. We have cut the slide, and the end is letting out a great quantity of water, but it has not yet drained the 220. We have also been obliged to discontinue the rise above the 210 for want of air, but there is not more than a fathom of ground between it and the sump coming down from the 200, which when holed will properly ventilate the level, and open out good ground for stopes. In the 200, for the last five months, our operations have been confined entirely to sinking the lode at this level, and the present end is worth 1007. per fathom; we have made the level 18 feet wider for about 9 fathoms in length, and there is still more of the lode to shoot off in width; we have, however, stopped the side shooting, and put the men to rise towards a sump coming down from the 190; taking the lode at its whole width it is worth 1507. per fathom. In the 190 we have holed the rise referred to in last report, and the end is now well ventilated, the lode in driving has not improved according to our anticipation, worth 307. per fathom. In the 180 the lode in the end is 6 feet wide, and worth 707. per fathom. In the 165 the two parts of the lode have not yet come together in the end, and we are still driving on the west part, which is improving, and worth 707. per fathom. As soon as the sump sinking below this level is holed to the 180 we shall be able to shoot off the eastern part of the lode, and prove its full width and value, the lode in the sump has continued rich as far as we have sunk (7 fathoms deep), worth on an average 907. per fathom.

The 155 fathom level: Six months ago the lode was cross-cutting the lode at this level, but we have not then cut through it; we have since done so, and found it to be 3 ft. wide. In this cross-cut we commenced to sink a sump to meet the rise coming up from below; last week we holed the sump to the rise, and have now commenced to stoop the ground both north and south in a lode worth 1007. per fathom. This 155 end has been extended north beyond the said sump 4 fms.; the lode in the end is small and poor, but seeing the 165 end is about 40 fms. in advance of it, which 40 fms. has been driven mostly through rich ore ground, we have no reason to doubt that the 155 will soon improve, and we are now happy to report a good and important improvement in a stoop in the sole of the level, which stoop was commenced four months ago, since which time it has gone on increasing in value as we descend, and in a sump we have recently commenced to sink the lode is now worth 607. per fathom. We look upon this improvement as being of immense importance, in consequence of its being further north than any of our rich ends in the old mine. Nothing has been discovered in the cross-cut, but the lode is rich, and we are now sinking a sump to meet the rise coming up from below. In the 140 end driving south we have intersected the slide; the lode up to it is yielding 3 tons of copper ore per fathom, and we have no doubt when the slide is cut through it will be equally productive on the other side. The 165 end south is at present poor, and the same may be said of the 60 driving south.

Dumbell's: During the past half-year the shaft has been sunk 9½ fathoms, making it 14½ fms. below the 155; the lode has greatly improved since your last meeting, and is now worth 2007. per fm., and it is now worth 1607. per fm. We shall soon commence to drive north and south on its course at what will be termed the 170, and by so doing we expect to open out as rich a piece of ore ground as any we have had in this part of the mine. The lode in the 155 end, driving south, is worth 407. per fm.; and the same level, driving north, is worth 507. per fm. We shall soon holed the latter end to a sump sunk down from the 140, and then open out a large section of profitable ground for stopes. The lode in the 140 end, driving north, is improving, now worth 607. per fm.; and the sump coming down from the 135 to meet the end is also worth 607. per fm. The air in the 125 end being very bad, the driving is suspended until the sump is holed to the 140 for ventilation. At the 110 we are driving a cross-cut east, for the purpose of intersecting another lode, which is known to exist at the adit level, but never proved below; we may, however, have a good distance to drive to cut it. We have also resumed driving the main adit level northwards, beyond Acrebach. We are now busily at work with the new level, and the new shaft, as decided on in the autumn of last year. In the south side of Laxey Glen the surface trials in search of the main Laxey lode have been continued, and a great extent of ground, from east to west, has been explored, but we are unable to find anything of note beyond the lode opened on in a quarry some months ago; and by measurement and dialling we find that the Deep Glen level cross-cut is not up to it by about 15 fathoms; we have, therefore, resumed the driving of this end.—Glenroy: The lode has been sunk to the 20, and the present end is 10 fms. and south 10 fms.; the lode is about 3 ft. wide, chiefly composed of sandstone, and yielding occasional stones of lead, blende, and copper. In the north end we have put the men to cross-cut east, to ascertain if another part of the lode is standing off in that direction, as we had, in sinking the shaft, a division in the lode; and latterly, to keep the line of the shaft, we were obliged to carry on the sinking on the western part. Referring to our principal scene of operations, we would, in conclusion, specially refer you to the present end of the 210, which is the deepest level of the mine that has reached the main run of ore, and together with the value of the ends above it, next, to the improvement in the sole of the 145; and, lastly, to the rich lode again met with in sinking Dumbell's shaft. From these facts alone we unhesitatingly declare that the prospects of the mines were never better for continued and permanent success.—R. ROWE, J. BARKELL.

The CHAIRMAN said he had very great pleasure in addressing the shareholders upon the present occasion, because he considered that the accounts and the detailed report of the managers were satisfactory as to the past, and encouraging as to the future. He fully agreed with the observations concluding that report, for he fully believed the mine was never in a better condition, or more likely to be a permanent, enduring, and profitable investment for the shareholders. The directors in their report had referred to the fact that for the last six months the dividends had been 8s. per share per quarter, and the board did not think that any company would have less confidence in those directors who shaped their dividends according to the earnings, rather than by falsifying the earnings make the accounts appear to justify a larger dividend. He was quite satisfied, whatever might be the feelings of parties, although they might be disappointed—and he was disappointed as much as, perhaps, anybody—that the course the present board pursued was prudent and sound, and he would never be a party to declare a dividend beyond the amount actually earned. (Hear, hear.) The diminished dividend, however, did not arise from any cause over which the directors could have possible control. As men of business, they must be all aware of the extraordinary effects produced upon all markets, and especially the metal market, by the war in France. They expected when that war commenced that instead of lower they would have had higher prices, but it had been otherwise, the average realised during the preceding six months having been 227, whereas in the six months embraced in the accounts it had been a rare thing to obtain 227, per ton for their lead; and in spelter the reduction had been greater than in lead. So great, indeed, had been the reduction in the price of that metal that they had been obliged to say they would not sell under a given price. They would find in last August accounts that blende sold and in stock was of the value of 10,3187., but in the last six months' accounts it was only 82567., showing in that article alone a loss of 20667. Had they realised an ordinary price for lead and blende they would have had more than sufficient to pay the 10s. quarterly dividend. During the last six months they had produced 108 tons of lead more than during the previous six months, but the difference in the amount received was only 17007., instead of more than 20007. The mine, therefore, had not diminished in its produce, but, as they were all aware, they were dependent upon the fluctuations of the

market for the price realised for their produce. As to the mine, he was fully satisfied it was in as good a position as it could possibly be. As he had already stated, they had been compelled to hold a very large amount of blende in hand, but since the accounts were made up—Feb. 3—they had sold blende and lead to the value of 15,1577., of which 65067. was for blende. There was a very great responsibility upon directors who conducted a large concern like this as to whether they should sell or hold their blende. They did not attempt to hold their lead, because they could do no otherwise than to submit to the price, whatever it might be; but the case was quite different as to blende, for sometimes the market was so depressed that literally they could get no price at all. They had limited their price to 37. 3s., instead of 37. 11s. 6d., which, upon the large quantity they produced, made a very considerable reduction, but, of course, they would again raise their price as soon as the market was firm enough to justify them in doing so. As to the mine, which engrossed as much of his attention as any portion of his business, he might mention that in the sole of the 145 there was found a small portion of ore, and it was determined to work upon it for the purpose of taking out whatever ore it might contain. When broken into it was found to be in the shape of a wedge, the thinner part being uppermost. It was found to spread each side as they worked down upon it, and that it was going north, covered only by a shell of rock. Upon opening it proved to be of considerable extent. They were now putting down a sump north, the end being worth 607. per fathom, and improving every foot. Taking the value of the ends in the several levels now being driven north, and seeing that the lode in Dumbell's shaft was worth 1607. per fathom, there was an immense space of ground between those points in whole ground, and which they had reasonable right to believe contained a deposit of ore that could not be taken out in the next 10 or 20 years, with all the appliances to boot. If what was stated in the report of the managers was true—and nobody could doubt it—every shareholder could judge for himself of the enormous reserves there were in that part of the mine alone, irrespective of the old mine. There the main engine-shaft was being sunk below the deepest level—the 220—where they were never without ore, which was an immense fact, and one which very few mines in the kingdom could state, and just now it had increased from 407. to 607. per fathom. The 210 end was worth 1007. per fathom; the 200 end, 1507.; the 190 end, 307.; the 180 end, 707.; the 165 end, 707.; and the 150 end, 407., which showed the immense amount of ore being driven through. At present they were unable to work below the 200 and 210, on account of the water, which, however, would shortly be tapped by the engine-shaft. The lower part was as rich or richer than any part of the mine. For the same reason they were unable to go on sinking the Welsh shaft, but an arrangement had been made by which they would be able to pump the water from that shaft at a small cost, and so work the rich and profitable ore ground discovered at that point. The aggregate value of the different ends was now 5707. per fathom, the "sumps" 3607., and the two shafts—the main engine-shaft and Dumbell's—2207., or in other words, a total aggregate value of 11507. per fathom. That was a state of things not often to be met with in any mine; and nobody could charge him with over-estimating the value of the mine when he (the Chairman) said that it was an intrinsically large and permanent property; and that, although it might vary in the amount of its dividends, the child was unborn that would see its resources exhausted. (Hear, hear.) It had been agreed to form a large reservoir to provide them with water in dry seasons. They had about eight miles of water-course, by which they brought every stream in the neighbourhood to their use. By the feudal rights existing in the island they could obtain whatever water they wanted; and they had exercised that power to the utmost of their ingenuity. The reservoir would not be completed till next year, and then they would be in a position to cope with any difficulty arising from dry seasons. It was being paid for out of their reserve capital, and it would probably cost between 30007. and 40007. They were also about to form a tramway from the washings-floors and stores to the sea-beach and harbour, by which means they would be able to load the vessels direct from the trucks—the necessary power had been obtained to lay the tramway along the high-road. Although possessing the best floors of any mine in the kingdom, certain alterations were about to be made to improve their efficiency. During the last twelve months they had erected a very admirable auxiliary in one of Blake's stone-breakers, by which they were enabled to do away with a vast deal of manual labour. Since the last meeting they had appointed a new secretary in the Isle of Man, the health of the late secretary having entirely broken down. He did not know that he had anything further to add, except to say that the directors had but one object in view, and worked most harmoniously together to do the best they possibly could for the mine and the company, and, being large shareholders, also the best for themselves. (Hear, hear.) He concluded by moving that the reports and accounts be received and adopted.

The proposition having been duly seconded, the motion adopting the report and accounts was put and carried unanimously, and it was agreed that a list of the shareholders should be printed as usual, to be obtained upon application at the office.

The CHAIRMAN, in reply to questions from different shareholders, stated that, in omitting to print upon this occasion a list of the shareholders, the board had consulted the expressed wishes of some of the English proprietors. The complaint was that they were written to by people connected with every scheme that was introduced to the public, to avoid which the English shareholders begged the board not to have the share list printed. He and his colleagues had not the slightest feeling of regret on the subject. As to their claim against the Laxey Neath Smelting Company, he was unable to say what it would be worth, the works and plant not having yet been sold; they were, however, represented to be of very great value. He added that not one of the Great Laxey directors held any interest whatever in the Laxey Neath Company, although strongly urged to become shareholders; as directors of Great Laxey, they did not think they could consistently be both sellers and buyers of the ore.

The meeting was then declared special, and the CHAIRMAN said that according to the 36th article of the company's Deed the qualification for a director was 100 shares. He who had suggested this alteration had but one object in view, and that was the subdivision of the shares among a greater number of English shareholders suitable as directors. Originally, when the qualification was fixed at 100 shares, they were 4s. each, whereas now they fluctuated between 177. and 207., therefore the holder of 50 shares now held two or three times as much interest in the company as an original holder of 100 shares. He, therefore, moved that the article in question be altered, and that the qualification for a director be fixed at 50 shares.—The proposition being duly seconded, was put and carried with one dissentient.

A vote of thanks to the chairman and directors terminated the proceedings.

GREAT NORTH LAXEY MINING COMPANY.

The annual general meeting of shareholders was held at the offices of the company, Austinfriars, on Thursday, Mr. W. C. BULLER in the chair.

The LONDON MANAGER and SECRETARY read the notice convening the meeting, and the minutes of the last were confirmed.

The report of the directors was read, as follows:—The directors feel pleasure in laying before you the accompanying report from Capt. Rowe, the local manager, from which it appears that the mine is giving more definite signs of approaching a profitably productive state than it has ever done before.

The quantity of ore raised and sold during the past twelve months is 190 tons, realising 24577., against 169 tons, realising 21587. in the previous year. Another 40 tons have been sampled, and Capt. Rowe expects that when the north shaft is complete to the 96 (daily expected) the returns will be at once increased. The shareholders are aware that in August last the directors were authorised to increase the capital by the issue of 7500 preference shares of 17. each. Up to the date of the balance-sheet, it will be seen that 3500 shares were subscribed for, since which 145 more have been taken—making the total number 3705. It has, however, been intimated to your directors that three gentlemen who have recently visited the mine (one of whom is already a considerable shareholder) are ready to take or place 2000 of these shares, provided at least one of them is elected on the board of directors. As one of the directors has intimated his readiness to retire, there is no difficulty in complying with this condition.

After much negotiation with the Commissioners of Woods and Forests, the directors have succeeded in obtaining from them an offer of a new lease for 21 years from Oct. 10 last, subject to the approval of the Board of Treasury. The rent to be 11. per annum, the royalty 1-20th on blende ore, 1-15th on copper ore, and 1-12th on lead ore, such royalty not to amount to less than 507. per annum—it being provided that in the event of the mine being worked, and explorations carried on to the satisfaction of Her Majesty's Commissioners, one-fourth part of the royalty payable during each of the first three years of the term shall be remitted or allowed to the lessees. Mr. Howard, on behalf of the Commissioners, also writes:—"The lease to be in the form and to contain the covenants now usually adopted in Crown leases of a similar description, one of which will require the lessees to keep in readiness a considerable number of men constantly at work on the premises, and others will entitle the Crown to one-fourth part of the consideration to which the lessees may become entitled on the assignment or other disposition of the whole or any part of their interest in the lease or premises, after deducting therefrom the net expenses, or a proportionate part thereof, which may have been incurred by them in opening and working the premises." The directors have accepted the offer of the lease on the above terms,

In accordance with the articles, the whole of the directors and the auditor retire from office, and offer themselves for re-election.

The report of the manager was read, as follows:—

April 8.—It will be remembered that at the general meeting, held 12 months ago, the principal question discussed was the propriety of sinking the north shaft with all the rapidity possible, and then to provide means for doing so. The meeting decided in the affirmative, but upon certain conditions—A reduction in the royalty on the part of the Crown, and also the extent of new shares that might be taken up by the shareholders for providing the further necessary capital. The conditions prevented our putting in force the necessary work for hastening the sinking of the north shaft until September last; since then we have sunk the north shaft 11 fms., 4 ft., and mean towards it from the 73 fm. level 12 fms. 3 ft., and are now daily expecting to hole the two points. The shaft is also sunk and holed from the 73 fathom level to the 96 fm. level, where we are cutting a lodge and preparing as fast as possible to sink to the 110 fathom level, a distance of 14 fms.; this will take about eight months to accomplish, and in the course of which I expect the sinking will intersect the first or southern run of ore ground, through which the 110 is now passing. The 110 fm. level end is nearly up under the sole of the north shaft, and for the last 14 fms. has been in ore ground; the lode in the present end is 4 ft. wide, and worth 1 ton of lead per fathom, besides a mixture of blende and copper. The 96 fm. level end for the last 2 fms. fell off in value, but has again improved, and the lode is now 3 ft. wide, worth about 15 cwt. of lead per fathom; we have ore ground laid open in this level for 24 fms. in length, north of the north shaft. Since August last the 60 fm. level has been driven as an exploratory level southwards; ground has been hard, and a lode small, but within the last fortnight a great feed of water has been tapped, and the lode is 2 feet in width, with easier ground; this is certainly a favourable indication, being in new ground. A real discovery here would at once make the mine a prize. But, turning again to the north part of the mine, there is every reason for believing that below the 110 a length and body of ore ground will be discovered sufficient to turn the scale, and render the mine a profitable one, in which case (long as it may be waited for) the proved character of the neighbourhood would be a guarantee of the soundness and permanency of success. When the shaft is holed between the 88 and 73 fm. levels we shall have good ventilation, and can at once put on new stoops between the 84 and 96 fm. levels, and thus increase upon the present returns of ore. We shall sample 40 tons of lead on Tuesday next.—R. ROWE.

The CHAIRMAN had much pleasure in moving that the reports and balance-sheet be received and adopted. He did not know that he could add any material point to the information already in the hands of the shareholders. He might, perhaps, mention that there had been a great deal of negotiation with the Commissioners of Woods and Forests in connection with the new lease; the directors desired the new lease to be granted with a reduction of dues from 1-12th to 1-18th, but the Commissioners refused to grant upon such terms, offering a new lease for 21 years at the old royalties, but provided that in the event of the mine being worked to the satisfaction of the Commissioners one-fourth part of the royalty during the first three years should be remitted to the lessees. As Capt. Rowe, the manager, was present to afford shareholders any information beyond that contained in his report, he (the Chairman) would not take upon himself to refer thereto, but content himself by stating that the mine had at length been developed to a depth at which every indication justified the confident hope that shareholders were about to be deservedly rewarded for their patience and outlay. (Hear, hear.)

Capt. Rowe, in reply to questions, stated that he hoped shortly to increase the returns from 20 to 30 tons per month. It was a noteworthy feature that Great Laxey when at about a similar depth to the present bottom of Great North Laxey realised about the same price for its ore as the Great North Laxey ore now fetched. At Great Laxey the percentage of silver augmented as depth was increased, and at Great North Laxey the value of the lode and the length of ore ground were considerably improving in depth.

Mr. EDWARD COOKE enquired whether the north shaft was being sunk in the body of the ore?—Capt. ROWE replied in the affirmative, adding that it had been sunk to the 96 fm. level, that all the ore dipped north, and that this shaft would make the main shaft of the mine. They would not only be sinking in ore ground, but they would also have ore ground on either side. It was a significant fact, the importance of which could not be over-rated, that the deeper they went the longer were the bunches of ore, and its average quality also improved. They had, too, any amount of ore ground north.

Mr. MURCHISON, in reply to a question, stated that in the estimate at the end of the balance-sheet the March cost had been reckoned that was not due till May, and if the matter referred to in the report were carried out by 3000 preference shares being taken up by gentlemen who had recently returned from the mine there would be an available capital from April 1 of 35007. after paying every debt. Up to the end of last month their liabilities were about 11007., but the March cost was not due till May 12—on the other side, to meet that amount (without reckoning the 3000 shares) there was 24377.

The CHAIRMAN added that a return of 30 tons per month would pay at least two-thirds of the working cost—in other words, there would be a loss of about 1507. per month, so that, reckoning the capital subscribed upon the 2000 preference shares, and without taking into account any increased returns, there would be a working capital sufficient to last them for 2½ years. When the resolution was passed with regard to the preference shares the number was limited to 7500; of these 3705 had already been issued, and the question now was whether the directors should not be restricted to the issue of 6000, keeping back 1500, not to be issued without the special sanction of shareholders.

Mr. EDWARD COOKE having seconded the motion for the adoption of the report and accounts, it was put and carried unanimously.

Mr. ROBERTS proposed that the directors be requested not to issue more than 6000 of the preference shares without the special sanction of the shareholders. Dr. RYAN seconded the proposition, which was put and carried.

Upon the proposition of Mr. EDWARD COOKE, seconded by Mr. DUMBELL, the retiring directors were re-elected, and a resolution was passed to the effect that the next general meeting be held in April, 1872.

Mr. EDWARD COOKE proposed that a vote of thanks be given to their worthy manager, Capt. Rowe, who had brought Great Laxey into its present satisfactory condition; and he (Mr. Cooke) hoped that they would all be shareholders in Great North Laxey when that mine was in a similarly prosperous state. (Hear, hear.)—Mr. WHITE seconded the proposition, which was put and carried unanimously.

Capt. Rowe, in acknowledging the vote, stated that the mine had hitherto been so slow in coming forward that he could not have fairly expected a vote of 3000 until some better results had been realised. He did, however, feel confident that by the next meeting the shareholders would have better reasons for according to him their thanks, for he believed by that time the mine would be in such a condition as not to require further assistance from the shareholders, but, on the contrary, yield some substantial proof of being a profitable mine. After a long struggle and great patience, he believed the shareholders would at last reap their reward. It was a very curious fact that when he went to Great Laxey now some 10 years since—that mine was in a similar state to the one at which had at last been attained in Great North Laxey. It was below that depth where Great Laxey began to prove such a great success, and he hoped that Great North Laxey would follow such an excellent example. (Hear, hear.) A vote of thanks to the Chairman terminated the proceedings.

GREAT WESTERN MINING COMPANY.

A general meeting of shareholders was held at the offices, Austinfriars, on Thursday, Mr. EDWARD COOKE in the chair.

The SECRETARY read the notice convening the meeting, and the minutes of the last were confirmed.

A statement of accounts was submitted, which showed a credit balance of 9187. 10s. 2d.

The report of the manager was read, as follows:—

April 12.—Fisher's Lode: Mitchell's engine-shaft has been sunk during the last three months 3 fms. 3 ft., and is now down 40 fms. below adit, pit cut, and a cross-cut commenced at this depth to drive north towards the lode, which we expect to intersect in about four weeks from this time. The 30 has been driven east 9 fms., through ground that is now being taken by tributaries at a profit; this lode in the present end is 2 ft. wide, worth 87. per fathom. In the bottom of the lode, west of the shaft, we have sunk a winze a short distance, and we are obliged to suspend it on account of water; the lode in this winze is 4 feet wide, worth 407. per fathom. The flat-rod shaft is sunk 3 fms. 2 ft. 6 in., and is communicated to the 30, which is driven from Mitchell's engine-shaft; the lode in this shaft is 2½ ft. wide, worth 97. per fathom, the sinking of which will be resumed as soon as the lode is cut in the 40, which will drain off a certain part of the water. The 20 has been extended west 9 fms. 5 ft., through a profitable lode, and is now at 4 fms. 3 ft.; the lode in the shaft has improved, and is 2 ft. wide, worth 107. per fathom. The 35 has been driven east 3 fms. 5 ft.; the lode is 3 ft. wide, and worth 167. per fathom. This level has also been driven west 2 fms.; the lode is 2 feet wide, worth 97. per fathom; these two levels are passing through a rich lode, and judging from the appearance of the lode at these three points, we consider we are on the top of a new bunch of tin, not seen in the upper levels. The 30 is driven west 8 fms., and has passed through ground that will be set on tribute, but; the lode in this shaft is worth 207. per fathom; price for stoping, 31. 10s. per fathom. The 20 is driven west 5 fms. 3 ft.; the lode is 2 ft. wide, worth 31. per fathom. Andrews's winze-shaft is sunk 6 fms. 5 ft., and is now down 31. 1 ft. below the 10; the lode is 3 feet wide, producing some rich stones of tin.—South Lode: The 10 has been driven east 5 fms.; the lode is 2½ ft. wide, worth 21. per fathom; the back of this level is set on tribute at a profit. The deep adit is driven west 2 fms. 2 ft. 6 in.; the end at the present time is suspended, and the back of the shaft has improved, and is 2 ft. wide, worth 7 fms. 5 ft. 6 in. through profitable ground; for the whole depth the lode in the bottom of the winze is 4 ft. wide, worth 97. per fathom for tin, with rich stones of copper ore—a very promising-looking lode. There are employed on tinwork, sinking shafts, winzes, and driving different levels, 44 men; on tribute, 74 men, the tributaries bates varying from 10s. to 15s. in 11., at a standard of 607. per ton, and paying all expenses; in various other branches of the mine, we have fixed flat-rod shafts on the mines of 214 persons. At surface we have fixed flat-rod shafts from Mitchell's engine to the flat-rod shaft, built bob-plat, fixed balance-bob in the same, in readiness to drop the pitwork, also fixed and put to work 16 additional self-acting frames. We are now of opinion that our dressing-floors are of sufficient size to redress any accumulated stuff that may be had for a long time to come. With regard to the prospects during the next quarter, we consider the returns of tin will meet the cost. In conclusion, we are glad to say that before the expiration of another three months we shall cut the lode in the 40, and expect to be opening ground on two lodges of great promise. Every fathom we go down confirms our belief that the mine will make rich in depth. We are looking forward that the next level will be a very rich one for a great length.—ED. ROGERS, EDM. ROGERS.

The CHAIRMAN said he met his co-shareholders upon this occasion

old on Thursday last, and have a quantity in the bin towards the 1st week
of April.

With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Ironworks and Collieries in Derbyshire; Collieries in North Durham, their Workings and Machinery, No. XVI.; Registration and Preservation of Mining Plans and Sections (D. Jones); Our Old Smelting Furnaces; New Phosphate Rocks (T. L. Phipson); Steel Manufacture (R. F. Musket); On the Origin of Metals and Minerals (A. Allison); Science and the Empire Art inseparable in Mining (R. Knapp); On the Dressing of Ores, No. V., by J. Darlington (illustrated); Ore Dressing, No. III. (E. G. Spilsbury); Mining, Foreign and Colonial (Wm. Earl); Mining in Sweden (Wm. Hoskin); Important Stannaries and Mining Question; North Treburget, late Tregardock; Shelton Clay and Tin Mining Company; Mining in Cardiganshire, No. 1.; Imperial Ottoman Mining Company—Meetings of the New Central Snailbeach, Pen Allt Silver-Lead, and The Lovell Mining Companies—South Australian Gold Fields—Foreign Mining and Metallurgy—How to Make the Lander Hill Mines Pay—Foreign Mines Reports—Willoughby Brothers' Steam Stamper—Copper Ore Sales at Redruth and Swansea—Patent Matters, &c.

VAN.—The latest advices state that a rich rib of steel ore has been intersected in the 44 cross-cut, west of engine-shaft, in the 30. This is a continuation of that cut in the 54 and 70 cross-outs. The latter points also look well.

PERRAN WHEAL YVYAN.—It is satisfactory to find that already the applications have been sufficiently numerous to warrant the directors to consider the propriety of commencing active operations. Mr. Josiah H. Hithins (consulting engineer of the Devon Great Consols) has joined the direction, after a minute personal inspection of the mine.

TANKERVILLE.—The lode in the shaft below the 102 looks splendid, and is expected to be down to the 112 by the end of June. The lode in the 102 east, and in the same level west from Brown's winze, is better than in the 92 above. The lode in the 102 west is 12 ft. wide—a course of ore from wall to wall. It is expected that a dividend of 6s. per share will be declared at the beginning of next month.

PLYNIMMON.—This mine being now in regular working order, with efficient machinery, will make progressive returns and profits. According to the last report four new stopes were set in the roof of the 12, to 16 men, at 2l. 15s. per fathom, the lode throughout being worth 12l. per fathom. The sale last month was 40 tons, and at least the same quantity will be sold this month, the mine already yielding a good profit.

WEST ESKAIR LLE.—An important improvement has taken place during the past two or three days at the cross-cut east of old workings. The branch of ore cut into is exceedingly rich, and about 18 inches wide, so far as opened upon at present. A box of the ore has been forwarded to the office of the company, where it can be seen. The branch will be better viewed when a few more days' work have been put to it. At present it shows every indication of going larger and richer. This discovery being 300 fms. east of old workings, a new and valuable mine will be opened up, thus doubling the returning capabilities of the company. Shares have changed hands at 2 to 2½.

BOG.—A company has been registered during the week to work this deservedly historic mine. It would appear that after the payment of all liabilities up to the present time there remains an unexpended balance of 7000l. The 70-in. cylinder engine has been started, and is working well. The mine is drained to the 70 fathom level, leaving about a similar depth to be drained, which will be accomplished forthwith, the machinery being ample for every requirement, nearly the whole of the main rods and pitwork being on the mine. The month's sampling, of 20 tons, will be made on Monday, and as the mine is drained the returns will be largely augmented. At a remote period the returns were very large, but, like all mines in the Roman Gravel and Tankerville district, was imperfectly developed. Capt. Arthur Waters and other authorities are of opinion that great discoveries will be made, not only by cross-cuts in opening up the lodes not hitherto worked, the facilities for which are great from the fact that the main engine shaft is already down 140 fms. under adit, but that also equally important discoveries are likely to be made laterally on the lodes partially wrought. In the bottom of the mine a course of ore is known to exist for a considerable length, varying in value from 2 to 10 tons per fathom. It is known that one party of men in the last month's working raised 36 tons of lead ore, thus proving the rich nature of the lode in this rich district. The shares are very largely held in the locality, and among the directors are gentlemen of considerable mining experience, and influentially connected.

PENNERLEY.—A company has been formed for working this property upon an extensive scale. After paying for the mines, machinery, and plant, there is an unexpended balance of 3000l. A sampling of 60 tons has already been made, and an increased quantity is promised for the next sale. The machinery already erected is perfect and ample for every requirement; and since the property changed hands an important improvement has taken place in the bottom of the mine. Up to the present time the workings have been conducted in a lethargic manner, but it is now proposed to pursue a more vigorous and effective development. At the Pennerley Mine proper an important discovery is expected at an early date by means of the cross-cuts now being driven to intersect the lodes, already partially worked upon, and proved rich at shallow depths. At the Potter's Pit, part of the mine, adjoining Tankerville, when the shaft is sunk 30 fms. deeper a course of ore will be intersected, proved in a former working which from inadequate machinery could not then be followed. It is stated that from this proved discovery alone 30 tons of lead can be at once returned. This mine immediately adjoins Bog.

MINING IN THE VAN DISTRICT.—In the *Mining Journal* of June 26, 1869, a correspondent tells how the late Mr. Morris, of Oswestry, was considered by many of his acquaintances to be simply mad in his views of the prospects of the Van Mine. They marvelled that a man, generally so shrewd and able, should take so apparently exaggerated an estimate of a little adit level mine, whilst many marvelled still more what kind of man that Capt. Williams could be who put such notions into his head. Since June, 1869, however, the Van has opened out far beyond anything Mr. Morris could possibly have conceived, and the fabulous riches of this great mine are now familiar to all as a "household word." The Llandloes Wheal Van Mining Company have during the last 13 months been working to the east of the Van, in a sett traversed by the main Van lode. An adit has been driven, and a shaft sunk, now down nearly 30 fms. below adit, from which it is intended to cross-cut to the lode. On the 8th inst. Capt. John Kitto writes:—"You will no doubt be pleased to hear that we cut a branch in the shaft at Llandloes Mine about 18 inches wide, containing good spots of lead ore, and the men say that when they cut into it there came out water and gas. The latter they set on fire on the top of the former. Again, on the 12th inst. Capt. Kitto writes:—"I have just returned from Llandloes Mine. The branch we have cut in the shaft is evidently the same as that in the adit level, only it is larger; it is now 18 in. wide (it was barely 9 inches wide in the adit), and of a kindly nature; and I have no doubt when it forms a junction with the main lode that it will have a very favourable influence. I showed some of the stuff from this vein to a gentleman who has had some considerable experience on this lode (but who will not have his name mentioned), and he said if we cut the main lode in such ground we are almost sure to get ore. The men say the gas was very strong when they cut into the branch." This discovery in branch dipping towards the main lode of the inflammable gas so often met with under similar circumstances at the Van, and upon which, as an indication, Capt. Williams has always laid great stress, is of the greatest importance. It is creating no little sensation in the neighbourhood, as it shows that the main lode cannot be very far away from the shaft, whilst nothing could be more favourable than the nature of the ground in which it will be intersected. In fact, a finer channel of ground for the production of lead ore could not possibly exist.

THE SHROPSHIRE MINING DISTRICT.—(from a Correspondent).—Having recently visited the above locality, it may interest some readers of the Journal who are unacquainted with it if I make a few remarks on the lead mines situated therein that are just now exciting so much attention. Probably there is not in the United Kingdom so many productive and fewer unproductive mines within the same limited area—say about six miles, commencing at the Snailbeach and ending at the Gric Mines—as may be seen in this important district. The first mine visited was the Roman Gravel, the shares in which have risen from 7l. 10s. to 15l. per share, or about 90,000l. on the entirety of the mine during the past two months. The reserves of lead already discovered are valued at from 200,000l. to 300,000l., and are being constantly increased. The adjoining mine, West Tankerville, is now on the eve of entering into a prosperous state. The house for the crusher is almost completed, and in a few weeks sales of ore will be commenced. Seeing that it contains the Roman Gravel lode, West Tankerville may be considered as a mine that scarcely takes of a speculative character. The shares, I am informed, are 2l. fully paid. Surely with such prospects as the mine presents the shares must soon command a much higher value. On visiting the Bog Mine I found the affairs of the mine were being vigorously prosecuted. A very powerful 70-in. engine, all ready to be put to work, together with a most efficient plant of machinery of the finest description, are all on the mine, and from what I could gather from parties who knew the mine in its former working there appears to be every reason for anticipating a great and productive property being opened up. I was informed that during the previous working upwards of 400 tons of lead ore were raised monthly, and that the mine would be found very rich when the water is out. In the meantime regular sales of lead will be made from the shallower levels. Next to the Bog is the Pennerley Mine, returning at present about 60 to 70 tons of lead monthly. With a more vigorous develop-

ment under the new management this will be greatly increased. There is every prospect of both the latter mines proving very prosperous and profitable concerns to the shareholders. Next I visited Tankerville Mine, which continues very rich indeed; in fact, there is nothing so rich in any other known mine as the deposit of lead in this mine below the 94 fm. level. A meeting will be held the latter part of the present month, and a dividend of 6s. per share will be declared. I hope next week to be enabled to remark on a few other mines I visited in this rich district.

THE LONDON AND THAMES RIVER GOLDEN CROWN COMPANY.—Under the heading of "Something like a Gold Mine," we last week called attention to an interest in a New Zealand mine on the Thames river which was being offered for sale. It was found, however, that a number of investors were desirous of buying into it who were hardly prepared to pay down 5000l. for a single share, and it was consequently determined to form a public company to purchase the interest offered. At the present rate of dividends it is returning fifty-four per cent. per annum upon the purchase money. The mine has paid dividends since July, 1868, amounting to 116,228l., and for the last half-year, ending with Jan., 1871, 25,920l. The following extracts taken from the local papers up to Feb. 6, to hand only last week, and the latest intelligence which has reached England from that colony, show that the mine not only looks good, but is as good as it looks. It is to be remembered that the share list must close (this is in order to secure the dividends for February and March last) on Saturday April 22, but possibly earlier. The first dividend will be declared two months hence, and at the present rate there would be some 400l. every alternate month to divide.—From the *Weekly News*, Auckland, Jan. 28: "Golden Crown.—Another 10l. dividend has been declared in this mine, on the strength of the splendid week's return obtained at the cleaning up yesterday at the company's machine, there being no returns this week from Taranaki. Only 100 tons of stone was crushed, and yet the yield reached 535 oza. 18 dwts. The best of the stone came from the lower winze workings of the mine, which, as I remarked in last week's report, had been left for a time, whilst the old workings leading to them were being timbered afresh. They were re-occupied early this week, but none of the stone was sent to the batteries until Wednesday night, hence its quality must have been very superior indeed to fetch the week's yield up to the above high figure." The same paper of Feb. 6, says:—"Another dividend of 10l. per scrip has been declared to-day in favour of this company. A like amount was declared last Saturday." Also: "Golden Crown.—Another first-rate weekly return is to be placed to the credit of this astonishingly productive mine. The gold turned out of the moulds in the Bank of New Zealand weighed 960 oza. 9 dwts., and is the product of about 140 tons of stone. Of this quantity 40 tons were crushed at the Tararua machine, and yielded 90 oza. The stone came from the new lode. [This new lode, which is from 6 to 8 ft. in thickness, is thus yielding 2½ oza. per ton].—From the *Daily Southern Cross*, Auckland, Feb. 6: "Golden Crown.—The usual weekly cleaning up of this company was finished this morning (Feb. 4) to a return of 450 oza. 11 dwts. melted gold. This places the return of gold from this mine during the last four weeks at 2018 oza. 18 dwts. Not bad this for the old Golden Crown, and it is gratifying to know that there is no immediate probability of a weakening of this yielding power." And in another paper it says:—"The continued success of the Golden Crown mine is a permanent source of wealth to the province is a matter of congratulation to all, as will be seen from the returns published elsewhere. The yield of gold for the past month has been very large considering the intervening holidays; neither is it made up of any extraordinarily large returns from a few mines, if we except about 2000 oza., the result from one ton of specimens taken out of the Caledonian Mine. This mine is situated amongst a cluster of good ones, of which the Golden Crown is the chief."

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, APRIL 13, 1871.

COPPER.				IRON.			
Best selected	£	s. d.	£ s. d.				Per ton.
Tough cake and tile	72	0	—	Bars Welsh, in London	7	6	—
Sheathing & sheets	74	0	0	Ditto, to arrive	7	5	0
Bottoms	77	0	0	Nail rods	7	10	0
Old	79	0	0	Staf. in London	12	6	0
Burra Burra	60	0	0	Bars	8	0	0
Wire	74	0	0	Hoops	8	10	0
Tubes	0	9½	—10d.	Do. at works	7	15	0
	0	10½	—10½d.	Hoops	8	2	5
BRASS.				Sheets, single <td>9</td> <td>10</td> <td>0</td>	9	10	0
	£	s. d.	£ s. d.	Pig No. 1, in Wales <td>3</td> <td>15</td> <td>0</td>	3	15	0
Sheets	7½	d.	—	Refined metal, ditto	4	0	0
Wire	7½	d.	—	Bars, common ditto	6	10	0
Tubes	8d.	—10½d.		Do. mch. Tynor Tees	6	10	0
SPELTER.				Do. railway, in Wales <td>6</td> <td>10</td> <td>0</td>	6	10	0
	£	s. d.	£ s. d.	Do., Swed. in London <td></td> <td></td> <td>None.</td>			None.
Yellow Metal Sheathing	7½	d.	—	To arrive	10	5	0
Sheets	6½	d.	—6½d.	Pig No. 1, in Clyde	2	15	0
ZINC.				Do. f.o.b. Tynor Tees <td>2</td> <td>6</td> <td>0</td>	2	6	0
	£	s. d.	£ s. d.	Do. Nos. 3, 4, f.o.b. Do <td>2</td> <td>6</td> <td>0</td>	2	6	0
In sheets	£21	0	0	Railway chairs	5	17	0
QUICKSILVER (p. bot.)	£11	0	0	" spikes	11	0	0
TIN.				Indian Charcoal Pigs,			
	£	s. d.	£ s. d.	in London, p. ton.	6	5	0
English blocks	£130	0	0	STEEL.			
Do., bars (in brs.)	131	0	0				Per ton.
Do., refined	134	0	0	Swed., in kegs (rolled)	12	10	0
Banca	130	0	0	Do. (hand-rolled)	10	13	0
Straits	127	0	0	Ditto, in faggots	15	0	0
TIN-PLATES.*				English, spring	17	0	0
	£	s. d.	£ s. d.				
C Charcoal, 1st qual.	18	0	0	LEAD.			
X Ditto, 1st quality	14	6	0				Per ton.
C Ditto, 2d quality	1	5	6	English Pig, com.	18	5	0
C Ditto, 3d quality	1	2	6	Ditto, L.B.	18	10	0
C Coke	1	0	0	Ditto, W.B.	19	10	0
X Ditto	1	0	0	Ditto, sheet	19	0	0
Canada, p. ton.	18	0	0	Ditto, red lead	20	10	0
Ditto, at works	18	0	0	Ditto, white	20	0	0

At the works, 1s. to 1s. 6d. per box less.

Terne-plats 2s. per box below tin-plats of similar brand.

REMARKS.—It is beyond all question that the continuance of internal dissensions in France tends very materially to contract business within narrow limits. Not only are the French people large consumers of the produce of our English markets, and purchasers of raw material from foreign markets, to an extent which considerably affects our home trade, but the fact that they are no longer buyers influences many other countries with which the English are associated commercially, and checks that progress which otherwise it would be our pleasure to record. It is, however, a matter of consolation that under existing circumstances we have only to report less rapid progress than would have been the case had events proved more propitious. When we recall the course of continental history since the spring of last year up to the present time it is a proof of the soundness of the metal market that so little disturbance has been experienced. There has been no collapse, no sudden fluctuation of prices, no wild speculation, but the exact contrary has been the case. The markets have continued remarkably stable, business, though kept within narrow limits, has been of a sound and thorough character. Some of the reasons for this may be attributed to the fact that the French market has been gradually reducing stocks, and others have been just indenting for a sufficiency to meet present necessity. With regard to some metals, the wear and tear of the past nine months on the Continent must have been far above the average, and this has not yet been made good. While with respect to others, if the expenditure has not been so large, owing to the cessation of all works of industry, still the very fact of so long a period having elapsed with no serious disturbance to the metal market is a proof of the soundness of the metal market. Bank rate has been reduced to 2½ per cent., owing to influx of capital from France, and to the comparative quietness which French affairs causes in commercial circles. The facility with which financial arrangements can be carried out may assist our markets to some extent.

COPPER.—The appearance of this market has improved during the week. Enquiries have not been so few and far between; greater firmness has been perceptible, and transactions have become more frequent, and of a more important character. Wallaroo cake has been sold at 74l. Chilli bars, according to brand and prompt, 64l. 10s. to 66l. Charters from Valparaiso, for the first fortnight in March, 1575 tons. In ordinary times the French demand for copper is considerable, and the entire cessation from this quarter affects the copper market very seriously; yet in the face of this discouragement prices are maintained, and some activity is discernible. It needs but the return of the French nation to industrial pursuits, and the continuance of short supplies from Chili, to establish an important rise in the value of this metal. Regulus, 13s. 5d. to 13s. 6d.

IRON.—There has been a steadier improvement in almost all the iron districts, and prices are very firm. The demand for railway purposes is large, and other varieties are in fair request. The French question operates unfavourably upon this market. The returns of shipments from the North of England show a decrease in stocks, but the clearances would have been much in excess of what they are had France taken the ordinary supplies. A lack of ships has also been stated as a reason why stocks have not been more materially lessened. Prices remain unaltered since our last. New furnaces are being blown in, and others are expected shortly to follow. The improvement noted in South Wales continues. Makers are satisfied that a busy time is before them. Should peace be restored in France the progress will be rapid, but without this orders from other quarters will supply work for some time to come. Russian contracts are exceptionally large, and heavy orders are in course of shipment. Very considerable quantities of iron have already been shipped to different parts of America, where important extensions of the railway system calls for increased supplies of iron. While all these facts are encouraging, it must be remembered that the power of production is very great, and until the demand is in excess of the capacity for meeting the same an advance in price may hardly be looked for. Scotch pigs, 21. 12s. 2d. cash.—Swedish Iron: The market is quiet. Prices for arrival are quoted at 10l. 5s. to 10l. 10s. There is no stock in London.

LEAD.—The market is firm at current quotations, in expectation of a speedy return to activity.

SPELTER is easier, without any material alteration in prices; 18l.

ex ship has been accepted for Silesian, at which price there are still sellers. English hard, 14l. 2s. 6d. to 14l. 5s., without much enquiry. ZINC.—A sale by auction of 80 tons London rolled zinc is reported, at 20l. 10s. to 21l., net cash, showing a declining market.

QUICKSILVER easier. To be bought under official quotations.

TIN.—The market is not so firm as it has been. It is questionable whether there is any material alteration in the value of tin, although the necessities of some weak holders have tempted them to accept prices below ordinary current quotations. Small parcels of Straits tin are reported to have changed hands at 126l. 10s. to 127l., but in consideration of the position of the market with reference to stocks and deliveries it seems probable that ere long we shall revert to former quotations.

TIN-PLATES are firm. There are no stocks in manufacturers' hands, and late advices from America, one of our most important markets, is to the effect that supplies there are very short. An advance in price may be expected.

COPPER TRADE.—Messrs. James and Shakespeare.—The Swansea ticketing of ore on the 11th inst. went off at an average of 12s. 11½d. per unit, and on the following day 13s. 6d. was paid by private contract for about 1200 tons regulus, part on spot and part to arrive at Liverpool. Bars have advanced a further 10s. per ton, a good enquiry existing throughout the week; but although the stock in Liverpool and Swansea is about 14,000 tons, there are scarcely any parcels offering. The transactions were mostly confined to the Urmeneta brand, of which the quality seems now to be much improved, and sales were made at 64l. 10s. and 65l. cash (chiefly the latter figure); 65l. and 65l. 10s., with slightly extended prompt. Lots have fetched 64l. 5s. and 64l. 10s. cash; 65l. for delivery three to four months hence. Good ordinary marks were difficult to procure, and scarcely anything reported in them; two or three sales were made at 65l. and 65l. 5s. cash, and short prompt, but the market closed at 65l. 10s. cash, buyers. On the 10th inst. telegrams came from Chili advising the characters for the first half of March last as about 1575 tons pure (of which 1175 tons bars and ingots, the remainder in ores and regulus); the quantity during the corresponding period 1870 was 1497 tons pure. In Australia we note a small lot of Barra at 74l. cash, and about 500 tons Wallaroo cake at 74l., with extra prompt. Since these sales the market has improved, and there are buyers at these rates, but no sellers, except at an advance of fully 10s. per ton; in fact, it would be difficult to name a reasonable figure at which any large quantity of either sort could now be purchased. English remains neglected, and though India sheets can be obtained much below their actual cost, they meet with but little demand, the Eastern markets not having yet responded to the improvement here.

Messrs. Vivian, Younger, and Bond.—The business in Chili produce reported consists of about 350 tons of cash bars at from 65l. to 66l. according to brands, and 1200 tons of regulus at 13s. 6d. to arrive at Liverpool. In fine foreign 350 tons Wallaroo is reported at 74l. cash, and short prompt. Orders for English raw copper are more plentiful, but for manufactured there is only a slight demand. On the 10th inst. the cablegram in advance of the Chilli mail of March 16 came to hand, advising charters of 1600 tons fine copper—1200 tons in bars and ingots, and 400 tons in ores and regulus.

The Easter holidays, and the arrangements necessary for the settlement of a heavy fortnightly account, have both affected business transactions in the MINING SHARE MARKET this week, but still moderate activity has prevailed generally, and in one or two mines a large business has been done, at a great advance in prices. This particularly refers to Eberhardt and Aurora, which has risen 10l. per share; and Roman Gravel, which has advanced 3l. 10s. A fair business has also been done in Great Wheal Vor, West Chiverton, South Condurrow, West Basset, Wheal Grenville, East Grenville, East Lovell, Tankerville, Carn Brea, Cook's Kitchen, Wheal Uyn, Great Laxey, West Maria, North Crofty, South Crofty, Taquaril, and a few others.

Great Laxey, 16 to 17; the general meeting was held on Wednesday, and full particulars of it will be found in another column. Notwithstanding the lessened dividend, caused by circumstances over which the directors had no control, the mine, they state, has not only maintained its reputation, but had lately disclosed new deposits of ore, by which the reserves had greatly increased, and the future of the mine improved. The present returns, therefore, if not exceeded, will be steadily kept up. The dividends, however, may fluctuate in amount, as the directors have determined to regulate them according to the amount earned. Since the war broke out, it appears, the average price obtained for the lead was lower than formerly (22l. per ton), and blende became so depressed that the directors held over a large quantity, and refused to sell it. Great North Laxey, 4 to 4½; the annual meeting was held on Thursday, and a full report will also be found in another column. The prospects of this mine seem to have greatly improved, and the agent considers he can now return 30 tons of lead ore per month, which will pay about two-thirds of the cost. The issue of preference shares is to be stopped. West Chiverton shares have been rather firmer, and leave off 32 to 33; we hear of no change at the mine.

Bronfloyd, 2½ to 2½; the directors have declared an interim quarterly dividend of 1000l., payable on the 25th. The lode in the bottom level (84) is worth fully 2½ tons of lead ore per fathom for the width of the level, 4 ft. Blaen Caelan, 1½ to 2½; this lode in the adit level, east of old adit, is yielding fully 2 tons of lead ore per fathom, and stopping at 35s. per fathom. South Condurrows have been weaker, and leave off 5½ to 5½. Wheal Grenvilles have been in request, and advanced to 4½ 5; the main part of the lode has been cut into at the 66, and a day or two will show its value. At the 90 this lode has been rich for nearly 40 fms. in length, varying from 30l. to 8l. per fathom. At the 80 it has been productive for more than 30 fathoms long, and the end worth 15l. per fathom, so that the 60 fm. level is an important point.

South Herodsfoots have been enquired at 10s. to 20s.; Ashteton, 2 to 3; Bedford United, 1 to 1½; Bwlch Consols, 1½ to 1½; Carn Brea, 55 to 57; Cook's Kitchen, 22½ to 23½; Dolcoath, 130 to 140; East Caradon, 4½ to 5½. East Lovells have been firmer at 26½ to 27½, owing chiefly to a short supply of stock at the account. East Pool, 13 to 13½; East Seton, 26s. to 28s.; East Wheal Grenville, 3½ to 4; Frank Mills, 25s. to 30s.; Great Western, 1½ to 2; Great Wheal Voss have been weaker, and leave off 8½ to 8½; North Crofty, 2½ to 3; North Roskear, 10 to 12; Okel Tor, 4 to 1; Parys Mountain, 3 to 3½; Plynlimmon, 1½ to 2½; Prince of Wales, 22s. to 24s.; Providence Mines, 31 to 33; South Frances, 37 to 39; Tankerville, 13½ to 14½; Tincroft, 48 to 50; Trumpet Consols, 21½ to 22½; Van, 55 to 57, ex div.; Van Consols, 30s. to 35s.; West Caradon, 4 to 1, call paid; West Drake Walls, 4s. to 6s.; West Frances, 43 to 45; West Tankerville, 2½ to 2½. Wheal Agar, 7s. 6d. to 12s.; at the meeting a call of 4s. per share was made. Wheal Buller, 5½ to 6½.

Wheal Uyn have advanced to 6½, 6½, ex dividend; Hingston Down, 2 to 2½; in the 110 west both ends east and west of cross-cut continue in a rich course of ore, worth 75l. per fathom. Lode in rise in back of 110 worth 40l. per fathom. Roman Gravel have been in good request up to 15, 15½, and leave off 14½ to 15. Pennerley and Bog Mines, near Roman Gravel, are commanding some attention, and have been done, Pennerley at 3½ to 4, Bog at 3½ to 4. Marke Valley, 7 to 7½; at the meeting the accounts showed a profit on the quarter of 1857l. 16s. 5d., and a dividend of 4s. per share (1800l.) was declared; the report states the mine continues very productive. At Carn Camborne meeting, held on Wednesday, the accounts showed a balance against the mine of 271l. 19s. 2d., and a call of 1s. per share was made. Devon Consols have been flatter, at 85 to 95, but a good improvement has taken place in the 115 at Railway shaft, where the lode has improved from 2 tons to 8 tons of ore per fathom. South Caradon, 310 to 320; West Pant-y-Go, 4 to 4½; West Seton, 130 to 135. Chontales, 4 to 4½; the advices are still favourable, and the returns to February, 423 oza. of gold, makes a profit of \$1145 for the month. Eberhardt and Aurora have advanced to 40, and leave off 35 to 40. Sweetland, 4 to 4½. Taquaril has advanced to 4½, 4½ prem.; Thornhill Reef, 1 to 1½.

The market for Mine Shares on the Stock Exchange, during the past week, has been very active, and a large amount of business transacted, more especially in the lead mines of Montgomeryshire and Shropshire, and in some of the recently introduced foreign undertakings. Eberhardt shares rose to 40, but the extreme advance has scarcely been maintained. Sweetland Creek and Birdseye Creek shares have been largely bought into for investment. Roman Gravel shares have advanced to 15½; Tankerville to 14½; Bog Mining Company to 3½; Van to 56½, Pennerley to 3½. The report from the Pennerley Mine, which will be seen in another column, is of a highly favourable character; for the month 60 tons of lead has been sampled, and an improvement has taken place in the bottom levels, and important discoveries are anticipated at an early date from cross-cuts now being driven to intersect side lodes, as well as from the sinking of Potter's Pit shaft, adjoining Tankerville. A company to work the Bog Mine has also this week been formed, and will

Date.	Time.	Tons c.	q.	lb.	Price per ton.	Purchasers.
April 5—	Caldbeck Fells..	6	2	3	0 £18 4 6	J. Bibby and Co.
—	ditto	19	9	2	0 6 19 4	ditto

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GASES AND MINING.
 A LECTURE, by JAMES P. BAKER, Esq., Her Majesty's Inspector of
 Mines for South Staffordshire, delivered before the South Midland Institute of
 Mining, Civil, and Mechanical Engineers. Post free, 1s. 1d.
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Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be left on receipt: it then forms an accumulating useful work of reference.

SIR,—Will you allow me to ask, through the medium of the Journal, whether someone of your numerous readers who may be a practical miner will kindly inform me what would be the expense per yard of driving a level in solid granite, and how much could be driven per week, the level being free from water?—J. H. W.

BARTLEY.—In reference to the enquiry of "J. A.," in last week's Journal, we may state that there is a moderate market for Barytes here, at a low price. If he communicates with us we can give him further particulars.—R. WATT and Co.: Glasgow.

MINING TRANSFERS.—All parties buying and selling mine shares should know that the sellers of the shares must now write their names or initials, with the date, on adhesive transfer stamps, failing which pursuers have no alternative but to return the transfers. The law requires this, and non-attention occasions much trouble and occasionally considerable loss.

ANGLO-BRAZILIAN AND ROSSA GRANDE GOLD MINES.—I quite sympathise with the disappointment expressed by your able correspondent whose letter upon the subject of this and the Anglo-Brazilian Gold Mining Company (Limited) appeared in the Supplement to last week's Journal. But the writer hardly goes far enough when he refers to the money wasted upon the purchase only of the Gongo Soco Mine by the Rossa Grande Company: he should have extended his remarks to the money wasted in the efforts to re-develop the Gongo Soco property—efforts which simply resulted in the report from Capt. Thomas Treloar to the effect that the property was useless for mining purposes, but that it would do admirably for grazing. Perhaps he thought this witty sally could not fail to amuse the class of beings "whose ears were long to listen, and whose hearts were credulous to believe" in his representations.—A ROSSA GRANDE SHAREHOLDER.

The greatest height ever attained by an aeronaut was reached by Mr. Glaisher in the summer of 1862. He became insensible when at an altitude of about six miles, and his companion, Mr. Coxwell, lost the use of his hands, but pulled the valve string with his teeth, and thus caused gas to escape and the balloon to descend. An observation made by Mr. Coxwell during Mr. Glaisher's insensibility appeared to indicate that the greatest altitude attained was 6½ miles, and that the temperature was then 12° below zero of Fahrenheit.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular line for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, APRIL 15, 1871.

THE COLLIERY EXPLOSION IN MONMOUTHSHIRE.

We have now all the evidence given before the Coroner in the case of the explosion at No. 1 Pit, Victoria, belonging to the Ebbw Vale Company, which happened on March 2, and that has led to the death of 19 people. Different from the circumstances attending the calamity at Pentre, where alike the cause and the point of ignition were facts satisfactorily accounted for and clearly understood, are those in respect of this accident, in relation to which the only point accurately defined is that the explosion took place in the stall (No. 6) of a workman named JOSEPH GALLOP. Coming, as it does, immediately after the warning of Mr. LIONEL BROUGH that other serious colliery explosions must be looked for to follow that at Pentre; we experience much gratification from the letter of "M. E.," written from Newcastle, and inserted in our last. That communication will, we hope, receive all the attention that it deserves in South Wales, where there can hardly be room for doubt that the question of efficient ventilation needs to have given to it some of the great thought which it has evoked in the North of England. As to the method adopted at Ebbw Vale, we have the most complete testimony. The system of ventilation and the workings where the explosion occurred were explained by Mr. PHINEAS JAMES, who is the principal mineral agent of the Ebbw Vale Works. Mr. JAMES said:—

"No. 1 pit, Victoria, is a mixed pit of ironstone and coal, 230 yards in depth. The air for the coal workings is carried from No. 1 pit, through the spotted vein main road, through a cross measure drift, to the old coal, a distance of about 5-6 yards from the pit. Then along the upper level of the old coal to the top of No. 9 cross-heading, then down No. 9 cross-heading, to an airway which goes through to No. 10 cross-heading, making a total distance from the pit of about 870 yards. The top of No. 10 cross-heading is about 181 yards from the lower level. A portion of air coming in from No. 9 to No. 10 is conveyed to the face of No. 10 cross-heading by a split, and it returns through an airway in the gob, on the west side, into No. 10 cross-heading, joining the main current below the split. The whole of the air goes down the heading, and is turned into the stalls by air-sheets hung across the heading. In every stall there is an airway through the pillar to the adjoining stall, and the air is carried to the face of each stall, along the lower stall road, clearing the face of the stall, and back to an airway in the gob, and passes to the next stall below. On the east side of the heading there are six stalls working, and on the west side seven stalls. The air, after passing through the stalls into and down the heading, goes to the lower level, and then eastward along the lower level in the old coal and spotted vein main road to an airway, which conveys it to the upper pit, No. 1; then up No. 6 pit as far as the Vydlog coal, and then along an air-heading in the Vydlog coal direct to the furnace at the bottom of No. 8 pit. The same system of ventilating the stalls has been carried out in all previous workings of this, the lowest range."

Thus we see that the workings consisted of one cross-heading, with stalls right and left. None of the stalls, it is explained, were in far. Those on the left were just being turned. Those on the right were in further. Between every stall there was an air-way driven through the pillar from stall to stall. This air-way was renewed in every ten yards as the stalls advanced. The air was taken along the stall road to the face of the stall, thence across the face of the stall, and back along an air-way in the gob, and through the pillar to the next adjoining stall, the air being directed into the stalls by sheets hung across the heading. It was in No. 10 heading that JOSEPH GALLOP was at work, a relative of the same name being occupied in the next stall. As is usual during work in such a place, the back of the gob became contracted by a superincumbent weight which closed the air-ways through the pillar. In other words, the actions known as "squeeze" and "puck" were going on at the back of the gob, and the thurlings got smaller and smaller by the squeezing. All this seems to have been noticed on the morning of the explosion by the fireman of the pit, who thereupon, having found gas in No. 6 stall, ordered JOSEPH GALLOP not to use a naked light as heretofore, but to use a Davy lamp. At the same time, GALLOP was told to drive a new thurling or spout-hole, so as to secure the normal quantity of air into that suspected place. The lamp seems to have been faithfully used, although naked lights were in the hands of the colliers in the other parts of the pit. True, GALLOP grumbled at having to use it, and said that he could get no light from it, but he did not tamper with it. Still he seems to have had but little apprehension of the danger which surrounded him, for, bent upon getting as much coal as he could with as little delay as possible, he went on cutting, and postponed the heading away of the spout-hole. This was a grave error, and the seriousness of the delay does not seem to have struck either the fireman who was killed by the explosion, or the assistant who survived; else it may be presumed that they would have enforced prompt obedience to the instructions which ordered the new thurling. If the thurling had been made there seems little reason to doubt that there could have been no accident.

But even with the thurling delayed as it was no explosion would in all probability have occurred if all the colliers had been required to use lamps. To use a lamp was an exception at Victoria. JOSEPH GALLOP seems to have been the only man in the pit who used one. The rest had naked lights. How (deposed Mr. ROBERT JORDAN, mineral agent for the Ebbw Vale Company at the Sirhowy Works) the gas which caused the explosion accumulated could only be conjectured. He thought that the sheet in the heading for turning air into the stall must have been displaced by some accident, and that the stall was giving off more gas than usual, either from a blower

or from an extra crush in the strata in that particular part at the time, and that it was carried out to the naked lights on the headings by the motion of the air, or that some one must have taken a naked light into it, as JOSEPH GALLOP's lamp was afterwards found locked in the stall.

There is no doubt that immediately before, or simultaneously with, the explosion there was much confusion amongst the drawers near to No. 6 stall. After the ignition trams were found across the road there, and three horses dead. Mr. JOSEPH GREEN, mineral agent for the Pontypool and Abersychan Works, under the Ebbw Vale Company, is of opinion that the crush in GALLOP's stall was bringing off more gas than usual, and that a fall took place directly the second haulier passed through the sheet-door below the stall, and that a small quantity of gas gathered over the fall. That gas coming into contact with the open light of the third haulier, who came down some time after and appeared to be confused through the trams running too fast, was, in Mr. GREEN's opinion, the cause of the explosion.

Mr. BROUGH, the Government Inspector for the district, is equally certain with the rest of the witnesses as to the immediate site of the explosion, but he has not formed a positive opinion as to the exact period of the fall, and the consequent confusion amongst the hauliers. His conviction seems to be that in consequence of the throttling of the air in the squeezed windway the stall filled in the face with a certain amount of fire-damp. All, however, would have been well if some one had not, unfortunately, and without doubt blundered in with a naked flame, for not only had GALLOP a safety-lamp in an atmosphere unexposed to a current which would have caused it to explode, but in addition there was comparatively little gas fired, notwithstanding that in the limited area of work it proved so disastrous to life. The great lesson to be learned from the calamity manifestly is that mixed lights ought not to be used in one and the same pit—that if it is useful that a protected light should be used in one part protected lights must be used in every part. The Inspector has intimated that he may have to put in force the arbitration powers, of the Act to determine whether this pit shall not henceforth be worked by lamps alone, for the "old coal" is known to be most fiery of all the seams in that district. But Mr. BROUGH will find no difficulty in dealing with the Ebbw Vale Company. A more thorough sweeping of the old coal in this pit was contemplated by Mr. JAMES a year ago, and the works, which the Inspector approved, were at that time actually begun, but they had been impeded by circumstances which Mr. JAMES explained at the inquest; now, however, so far removed that the operations having been resumed they will be completed a few weeks hence.

The operations comprise the sinking of No. 8 pit 60 yards deeper, so that more air can be got, and a great many of the long bewildering roads in the old coal cut off at the same time that another up-cast shaft is constructed. Then, too, it may be fairly concluded that not the double but the better single stall plan for working the old coal will be adopted. Further, to the extent possible in the works, as at present laid out, it may be supposed that "the manifest advantages of the tail-rope system" will be adopted, thereby rendering the managers to that extent "no longer dependent on the prudence of hauliers, or (in Mr. BROUGH's expressive phrase) the nervous constitution of that most useful of all animals—the horse." We are sure that everything that may be reasonably looked for will be done by the Ebbw Vale Company, to whose credit it has to be recorded that this is the first catastrophe that has occurred in their mines for 20 years. The interest of the company in their workpeople is shown in their having taken upon themselves the support of the dependents of the deceased; and the confidence of the workpeople in the arrangements at the pit appears in their having brought no complaints to the jury, whose verdict was that of "Accidental Death," accompanied with the very reasonable recommendation that in future when any spout-hole has to be made it shall be at once executed.

A UNIVERSAL COLLIERY INSURANCE.

The subject of providing a general insurance fund, sufficient to make provision for the loss of every life occurring in the collieries of the United Kingdom, is one to which we have often adverted, and which has at all times had our most cordial approval and support. We candidly admit that we regard it somewhat as a reflection upon the great and wealthy mining interests that whenever an explosion of any magnitude takes place an appeal is made to the public generally for subscriptions towards relieving the distress and privations of those who have been deprived of their chief support. An interest which represents a capital investment of something like 50,000,000 sterling should long ere this have originated and carried out some plan which would meet every exigency which may arise, and render unnecessary those public appeals which are so frequently made, but which, as a rule, meet with little response from any but those who are either directly or indirectly connected with the coal trade of the kingdom. That many of the principal colliery proprietors are actuated by a most benevolent spirit, and would cheerfully support any feasible plan for a universal insurance, is self-evident from the manner in which they respond to all appeals made them; but that difficulties exist in the way of the establishment of such a general fund is also apparent. The chief and almost the only insurmountable obstacle to a voluntary insurance fund is the fact that it could only be partial in its character; no appeals, however urgent or importune, would secure the practical recognition of masters and workmen alike; and, without the material aid of both, any scheme would fall short of its desired end. Voluntary efforts would, therefore, be partial and unsatisfactory; and however reluctant colliery proprietors and working miners are to the interference of Parliament upon matters which may be regarded as personal and domestic, still we are afraid that State machinery alone could work out to a successful issue a problem of such a difficult and complex character.

We have been led to make these remarks from a perusal of a memorial which has just been addressed by the Cardiff Chamber of Commerce to the Home Secretary, the Right Hon. H. A. BRUCE, M.P., and which is deserving the careful and serious attention of everyone interested in colliery operations. The scheme propounded by the Cardiff Chamber of Commerce is to the effect that the Home Secretary should embody in his new Mines Regulation Bill a clause or clauses rendering it compulsory upon landowners interested in collieries, colliery proprietors, and colliery workers to subscribe towards a general insurance fund, *pro rata*, according to their interests. The amount proposed by the Chamber of Commerce for this purpose is from the landowners and the colliery proprietor an eighth of a penny per ton on the royalty, and one penny per week from each workman; and these very trivial amounts would secure a fund sufficiently ample to meet every call which could be legitimately made upon it, taking for its basis the average number of fatal accidents which yearly occur in our midst. The figures adduced are somewhat startling. There are in round numbers about 3000 collieries in the United Kingdom, giving employment to about 345,000 men and boys, and paying in wages about 14,000,000, per annum. The landowners' interest in collieries at the minimum royalty of 6d. per ton amounts to 2,700,000, per annum, which at an eighth of a penny per ton would produce about £56,250, per annum; the colliery proprietor, based upon the same calculation, would produce an equal amount; whilst a penny per week from the 345,000 colliers would produce about 75,000, giving a grand total of about 187,500, per annum. The number of fatal accidents which occurred in our coal mines during 1869 was 1116, and to provide a sum of 150, for each a sum of 167,000, would be required, so that there would be a yearly balance of about 20,000, to meet any contingency which might arise, or which might be devoted to other purposes in connection with the general interests of the mining community.

Looking at the plan in an abstract point of view, it appears perfectly feasible of adoption, and there can be no doubt that "A National Colliers' Accidental Death Fund" would be a great boon not only to those more immediately interested, but the public generally, for the widows and wives of the colliers too often have to seek and accept parish relief, no provision having been made for the time of sickness and death. The subject of a National Colliers' Insurance is one which we earnestly commend to the attention of all interested; and were the wishes of the landowners and colliery proprietors made known to the Secretary of State for the Home Department, we can

scarcely believe he would refuse to give them practical embodiment in the Mines Regulation Bill which is now under his charge, and which he is evidently most anxious to bring to a successful termination.

INDUSTRIAL AND TECHNICAL EDUCATION.

The preparatory programme of the National Technical University has now been issued, and affords abundant evidence of the promoters' intention to meet the views of all classes of industrials to the utmost of their ability, and thus secure the confidence and support of the largest possible number; and as the design of the university is to ensure "the progressive development of our industrial prosperity by systematically uniting the best and most fruitful influences of science and art, inventive ingenuity, and practical cleverness, and by effectually diffusing these elements of success throughout the whole education of the classes on whose intelligent exertions that prosperity mainly depends," its usefulness will, doubtless, be sufficiently appreciated to secure its success. The promoters of the university display their knowledge of the requirements of the class for whose benefit they are striving by the single observation made by them, that "working men's science must not be abstruse nor controversial, and need not be either exhaustive, refined, or sublime." It is not essential in their point of view to take much trouble with the properties of bodies never seen, whose usefulness, if ever they are to have any, is a matter of the far future, or of recondite researches which confute previous hypotheses, but only to substitute one uncertainty for another. Yet the promoters of the university thoroughly understand that "the scientific instruction given to working men must be thoroughly sound, and have a broad, substantial foundation of standard facts and principles, but it must also be plain, practical, business-like, and to the point."

It is, without doubt, necessary that artisans, if taught science at all, must be taught that which they can utilise at once, for otherwise their interest in the studies will cease, and the labours of the university will consequently be lost; and upon this point it is observed that to artisans who will assemble to perfect themselves in their respective trades, and to get their abilities tested, certified, and rewarded, if deserving, it will be of paramount importance that the limits of their time, means, and previous culture be duly considered, in order that each category of students may receive in the right form the right quantity of the right kind of knowledge, without stint or superfluity, for it is recognised that stunted instruction would involve a corresponding shortcoming in the artisan's working value, whilst superfluous knowledge, or that not calculated to add to the value of his work, or to the enlightened and conscientious performance of his duties, might induce, or at least he suspected by employers of inducing, a tendency to wandering thoughts and desultory habits, and raise a prejudice against the movement. It is remarked with great truth that we are accustomed to see the various sciences arranged in distinct autonomies, and that persons make this or that their favourite study, with little or no regard to any connection with their business pursuits; that subject, indeed, being often preferred which lies furthest from them, and, therefore, savours most of recreation, and it is urged that we are, in consequence, apt to forget that the mechanic or the tradesman who wishes scientific knowledge to render him actual service that can be translated into pounds, shillings, and pence, must pursue a very different plan. It hardly ever occurs that any one science taken by itself could serve his purpose, even though he were to study it ever so thoroughly, but it is considered that a selection from several sciences should be made, not by himself, for ignorance must not, if it can be helped, attempt to be its own guide to knowledge, but if possible by some competent technician, who to a thorough knowledge of the resources of each science unites an equally thorough knowledge of the requirements of each trade for which he is called upon to prescribe a course.

With reference to the principles of organisation, it is stated that hopes are entertained of obtaining a peculiarly eligible and economical site, and that at all events care will be taken that the locality selected, whilst it is healthy and convenient of access, affording ample space for the development of the proposed edifice and appurtenances on such a scale as to make it a worthy centre for the industrial energy of the most industrial nation of the world, shall, at the same time, be of so unpretentious a character that students in fustian may not be considered as intruders, nor smoke and hammering denounced as nuisances. It is proposed that first-rate instruction shall be given in the lecture-halls and class-rooms, and that this shall be illustrated with the aid of a museum, composed of collections specially contrived for the purpose, and conspicuous for their comprehensiveness, yet still more for the principles of thoughtful selection and arrangement, which will everywhere be made manifest. In short, whilst instruction, illustration, and actual practice will be carried on in the most perfect style, care will be taken that in every respect the true interests of technical and commercial industry may be constantly kept in view, and the highest level of industrial knowledge and ability made accessible to the greatest number at the most moderate expense. And as to the examinations, which will naturally form an important matter for consideration, it is remarked that particular care will be taken so to organise them that every candidate may feel that he has, at least, a fair chance; and so to institute the various certificates of competency, diplomas of excellence, and prizes, that they may always reach the right hands, and recompense the right sort of attainments. If the promoters of the National Technical University succeed in accomplishing this they will have done much to secure the confidence of all who are likely to become students in the various colleges connected with them.

Referring to the miscellaneous departments of usefulness, the committee express the determination not to initiate at random any portion of the proposed organisation, and in this view the designation of the various subjects for which special chairs will be appointed is deferred till the preliminary work of classifying and tabulating the intellectual requirements of the students shall be in an advanced state; but one matter has been decided, which is calculated to give general satisfaction to the visitors to the proposed university museum—everything will be displayed with so much attention to the convenience of inspection, and the proper order of sequence, that a student reviewing the several series in succession, with the aid of a specially prepared text-book, will be able to refresh his memory with as near an approximation to an oral lecture as the nature of the subject may allow. It is promised that every effort shall be made to facilitate the spread of genuine practical knowledge; no influence will be sought which may not be the means of propagating knowledge and securing prosperity; no power or importance will be claimed which cannot be made to shed a new lustre on England's industrial honours. The effort has evidently been made to arrange a scheme which shall be acceptable to all classes of artisans, and it is therefore not unreasonable to hope that when the new university has been fully organised, and is in complete working order, its certificates of merit—whether it be the minor or the major certificate of competency, or the diploma of excellence—will be eagerly contended for by artisans throughout the kingdom, and the value of the distinctions generally recognised.

GOLD IN AMERICA.—Mr. ROSSITER W. RAYMOND, United States Commissioner of Mining Statistics, estimates the bullion product for 1869 at \$63,500,000—divided as follows:

California.....	\$20,000,000
Nevada.....	14,000,000
Oregon and Washington.....	4,000,000
Idaho.....	7,000,000
Montana.....	12,000,000
Colorado and Wyoming.....	4,000,000
New Mexico.....	500,000
Arizona.....	1,000,000
All other sources.....	1,000,000

THE EXPORT COAL TRADE.—This trade still feels the influences of the prolonged disorders in France. Thus in March the total exports of coal, coke, &c., from the United Kingdom to France amounted to 161,102 tons, against 244,667 tons in the month of March, 1870, and 149,260 tons in March, 1869. The exports of coal to all quarters in March attained a total of 957,863 tons, as compared with 1,004,196 tons in March, 1870, and 855,089 tons in March, 1869. In the three months ending March 31 this year coal was exported from the United Kingdom to the extent of 2,235,970 tons, against 2,416,119 tons in the corresponding period of 1870, and

2,163,725 tons in the corresponding period of 1869. In these totals France figured for 421,692 tons, 625,371 tons, and 479,215 tons respectively. The exports have increased this year to Russia, Germany, Holland, Italy, Brazil, and British India; but they have decreased to Sweden, Denmark, France, Spain, &c. The value of the coal exported in March was 463,851*l.*, as compared with 485,503*l.* in March, 1870, and 414,517*l.* in March, 1869; and in the three months ending March 31 this year 1,106,157*l.*, as compared with 1,176,891*l.* in the corresponding period of 1870, and 1,075,996*l.* in the corresponding period of 1869.

STEEL AND ITS MANUFACTURE.

The desirability of obtaining direct from pig-iron steel similar to that from the crucible, and at one-fifth the price of corresponding qualities is so obvious that the process of Mr. A. Bérard which has for its object the manufacture of cheap yet superior steel, by a direct method, is naturally entitled to consideration. In describing his process, Mr. Bérard remarks that the insufficiency of the old mode of manufacture has induced the proprietors of ironworks to re-organise their establishments at great cost. Every important firm has hastened to increase its means of production in the hope of thereby diminishing the cost price by a reduction of general expenses, without troubling themselves much about those improvements the future has in store for them, the immediate result of which has been to encumber capital largely. Steel is destined, he thinks, at no distant period to supersede cast and wrought iron in the greater part of the most important industrial applications, the superiority of its resistance, malleability, tenacity, and the property of tempering, as also the facility with which it may be cast into any given form, however varied and complicated, gives to steel the superiority which it is impossible not to recognise.

The process of Mr. Bérard is essentially a gas process, and he seeks to use the gas as a re-agent as well as a calorific, and he claims that in the gaseous he employs, the decomposition of the tar and steam is so complete that no trace of carbonic acid is left, and that the gases possess a very high temperature, without the necessity of being re-heated. This, he says, is a veritable regeneration, whilst the regenerating principle of the Siemens' system consists only of a simple re-heater, in which nothing is regenerated. The gas obtained with his system of gaseous is said to be always of excellent quality, without mixture of carbonic acid, steam, or tar, being rich in hydrogen and carburetted hydrogen, and containing but a minimum of nitrogen, whilst the economy of production is remarkable—10,000 cubic metres corresponding to the make of a double gaseous, working 10 hours, costing no more than 66 frs., or, according to the English system of measuring, 5*d.* per 1000 cubic feet. All the consequences, he continues, which are possible to flow from so complete a solution of the production of gas, may now be perceived, not only as applied to the different operations of metallurgy, such as melting of the pig for refining, re-melting refined iron for puddling, heating balls, reheating of blooms, and the subsequent heating received in the first formation of uses, but also in the most varied applications of industry and of domestic economy; and he affirms, without fear of contradiction, by facts, that this is the starting point of a revolution in the employment of combustibles.

The theory upon which the process is based is summed up by Mr. Bérard in his "Observations on the Character of the Intermolecular Combination of Substances contained in Pig-Iron, and upon the Influence of Hydrogen in the Manufacture of Cast-Steel," in the statement that in order to effect the direct conversion of pig-iron into steel, under the best possible circumstances, it is necessary, first, to expel foreign bodies, such as silicon, manganese, the greatest part of the carbon, &c., by intermolecular combustion of these bodies by means of an energetic current of air, pure or mitigated, by a mixture of carburetted hydrogen, thus raising the high temperature in the metallic bath under the best practical circumstances of economy, and, secondly, to reduce the oxide of iron formed during the period of oxidation by the action of a current of purified and superheated carburetted hydrogen, or by a mixture of air and gas in excess. The cooling effect resulting from the reduction of the oxide is counteracted by means of a supplementary heat from the gas for heating the furnace. The alternate action of oxidation and reduction may be prolonged without inconvenience as long as necessary. To maintain the metal in contact with the scoriae, by an incessant and energetic mechanical working, which renews the surfaces of contact, an effect which is obtained naturally by currents of injection. During the period of oxidation the metalloids, such as sulphur and phosphorus, capable of being oxidised, at least partially, and finding themselves in the presence of energetic bases (such as soda, lime, manganese, &c.), will form sulphates and phosphates, which will pass into the slag. At least a portion of the noxious bodies will be thus carried away. The period of reduction, powerless to decompose the earthy silicates formed, will act solely upon the oxide of iron, in order to bring it back to its metallic state. The carburetted hydrogen, he says, will exercise a double action by its carbon, in retarding the decarburisation of the iron, which is an essential point to be realised, and by its hydrogen acting as a reducing agent on the oxide of iron, and as a purative of sulphur and phosphorus, by forming sulphuretted and phosphuretted volatile hydrogens, susceptible by that very means of being separated from their combination with iron.

According to Mr. Bérard's invention, several apparatus are used so closely connected with each other as to form almost one apparatus. Thus the converter is a basin into which tuyeres for the supply of air and gas descend, and immediately beyond it is a second, of less capacity, for melting spiegelisen, whilst a third bed still further from the converter, for raising the scrap to a white heat before returning it to the converter for re-manufacture. There are, likewise, arrangements for heating the air necessary for the combustion of the gases when heating the furnace, and also for heating the refined gases employed in the injection through the metallic bath. The heat given out in the furnace is, by this means, completely utilised. The iron may be run directly into the converter from the blast-furnace, or may be taken from the cupola or other furnace after the second melting. When mixtures of iron have to be made for obtaining certain qualities of steel, it is important that the liquid iron should be rich in carbon, whereas by the ordinary method the second method has the effect of partly destroying the original carbon. A very simple arrangement allows the proportion of air and gas previously purified (which is injected by a strong pressure into the bath) to be varied during the operation. When air is in the greater proportion the reaction is oxidising; it is on the contrary, reducing, if the quantity of gas be increased beyond a certain point; in the intermediate situation it is neutral. During the oxidising period, he continues, the temperature is considerably raised by the combustion of the carbon, the silicon, the manganese, and of a small proportion of the iron. The sulphur and phosphorus are transformed into sulphuric acid and phosphoric acid, which may be partly volatilised, or may enter into the scoriae. During the reduction period the oxide of iron alone is reduced; the silica combines with the oxide of manganese and the other bases in order to form silicates, which constitute the scoriae of the bath. The metalloids, sulphur, phosphorus, &c., form with the hydrogen volatile hydrogenised compounds, which will not combine; hydrogen plays here a double part of great importance. The iron is in this way freed from pernicious bodies which would have changed the quality of the steel, and the waste is reduced to little more than the loss of foreign bodies in combustion, equal to about 7 or 8 per cent.—an extremely small percentage.

It may be mentioned that large steelworks in France are now being erected for manufacturing steel on this system, and that Messrs. Whitley Partners, of Leeds, have undertaken the sole representation of the inventor in this country. With regard to the facility for carrying out the process, it is stated that the operation takes from an hour to an hour-and-a-half, according to the nature of iron manipulated. The results of frequently-renewed tests towards the end of the operation will determine the point of decarburisation of the metal, and the instant at which it should be arrested, in order to obtain the quality of steel desired; the tuyeres are then withdrawn, and the liquid left to itself for the few minutes occupied in preparing for tapping-off. The practical difficulties of the method of working by means of tuyeres have been happily surmounted: this, it is said, is done by a simple and economical process, with a certainty as to the

results, and a perfect regularity, which leaves nothing to be desired. Experiments, on a large scale, have already been made with Mr. A. Bérard's furnaces, and 50 tons of steel per 24 hours were produced.

IRON AND STEEL.—We learn that Mr. GERHARD, the metallurgical chemist, of Wolverhampton, is proceeding with his experiments in the manufacture of iron, and that he has succeeded in producing from the ore refined iron of a high order, at much under the cost of a similar quality very much sought after by certain machine foundries and producers of finished iron. Mr. GERHARD, however, aims at the making of steel at much less cost than at present attends the production of that metal by any of the methods now in vogue, and he has much confidence that he shall soon succeed. Nor does he disregard the importance of producing finished iron in a pure state. He believes that he can see his way to this without the interposition of the puddler.

CHEAP REDUCTION PROCESS.—A new furnace is stated to be in operation in Nevada; indeed two different furnaces are now working ore up to 93 per cent., and cheaper than the Stetefeldt. The process employed at the Big Smoky mill—the revolving inclined cylinder—costs far less than the Stetefeldt to erect and get to working. It can be taken down, on occasion, and removed. It is less liable to damage, less liable to injure workmen, and more easily got at for repairs when needed. As to priority of right simply to pass over through a flame, nobody on this coast need say anything about that, the idea did not originate here; and that idea simple can not be patented anyhow, for we know of three patents out under each of which that process is employed. This new furnace is stated to cost but 600*l.* to erect, and to be equally applicable to base ores, which it treats to perfection, and to sulphuretted gold ores. Great advantage is anticipated from the competition that will spring up through the facility offered for erecting a really good mill without being subject to patentees' royalties. The latest advices state that the Big Smoky mill had just been shut down for its regular monthly clean-up, which will take but a few hours. They have been and are running on Virginia ore and ore from Pioche, having a contract of 200 tons from the Washington Mine. This ore all goes through the roasting process, and works up to a high per cent., making bullion over 900 fine, and working just about double in value to what it can be worked at Pioche. There is ore enough out at this mine, if the facilities for transportation were greater, to keep the Big Smoky going steady for an indefinite time, and the owners of the mine and mill are satisfied with the results. Too much cannot be said in praise of the furnace connected with this mill—enough, that it is a continued and complete success. A mill company could now readily undertake to work fair average ore for 4*l.* per ton, and guarantee 80 per cent. of the assay; and as the furnaces chloridise the pulp to 90 per cent., this would give a handsome margin for profit.

ROYAL SCHOOL OF MINES.—The Lecturer on Mining and Mineralogy, the Lecturer on Geology, the Lecturer on Metallurgy, and the Keeper of Mining Records at the Royal School of Mines are opposed to the recommendation of the Royal Commissioners on Science to separate the school from the collections in the Museum of Practical Geology in Jernyn-street, and transfer it to South Kensington. The officers of the school above-mentioned have prepared a statement on the subject, which they propose to submit to Her Majesty's Government.

THE INSTITUTION OF CIVIL ENGINEERS.—During the last quarter the additions to the list of members of all classes have been 151, while the casualties have been 41, showing an effective increase of 110. The numbers on the list on the 5th inst. were 16 honorary members, 724 members, 1051 associates, and 204 students, making a total of 1995, as against 1847 at the same date last year.

REPORT FROM SCOTLAND.

April 12.—On account of the holidays at the end of last week there was nothing doing in the Pig-Iron Market, the price being nominally 5*l.* 6*d.* to 5*l.* 9*d.* cash. This week there has been more animation shown on account of the continuance of good shipping returns, and warrants have been freely dealt in from 5*l.* 9*d.* to 5*l.* 3*d.* cash, and 5*l.* 5*d.* to 5*l.* 6*d.* one month. The closing price this afternoon is 5*l.* 1*d.* The value of iron in makers' hands is well maintained, and several brands have advanced since last week 6*d.* to 1*s.* per ton.

G. M. brands at Glasgow (deliverable alongside).	No. 1.	No. 2.
Guthrie's ditto	55 <i>s.</i> 6 <i>d.</i>	55 <i>s.</i> 0 <i>d.</i>
Coltman's ditto	61	56
Summerlee ditto	61	56
Langloan ditto	59	55
Carbure ditto	59	55
Calder ditto	59	55
Glenarnock at Ardrossan ditto	59	55
Dalmellington ditto	56	55
Eglington ditto	56	55
Carron at Grangemouth ditto	55	55
Shotts ditto	59	57
Kinnell ditto	55	53
G. M. brands at Middlesbrough ditto	50	47
Bar iron.....	47	50
Nail rods.....	7	10
Rails in Wales.....	6	7

Prices of Manufactured Iron have hardened during last week, on account of good buying and more numerous specifications offering, from about 2*s.* 6*d.* to 5*s.* a ton, some of the best brands having been advanced as much as 10*s.* a ton—Ellis (Coatbridge) and Govan (Glasgow). Angle iron is also better, ship being 7*l.* 12*s.* 6*d.* to 8*l.*, and boiler 9*l.* to 15*l.*, as in quality. The works are all busy, but some are short of hands, which cannot be had.

On Tuesday a case arising out of the dispute between the Coatbridge Tin-Plate Company and their puddlers was heard by Sheriff Logie in the Airdrie Small Debt Court. After agents had been heard on both sides, the Sheriff reviewed the evidence, and gave decision against the company. This brought the dispute to a close, and an arrangement has been effected, by the company paying to the men the sum of 70*l.* sterling, besides the deduction made of 6*d.* per ton out of their lie time, with an obligation on the part of Mr. Bell to pay the whole expenses between agent and client incurred in regard to the proceedings relative to the dispute. Under this arrangement the men have again commenced work.

Several large forgings have been conveyed through our streets lately for the shipyards on the Clyde. A main shaft, for one of the vessels building at Fairfield, for the firm of Elder and Company, has been completed at Parkhead Forge. After being forge-dressed it weighs 32 tons, and is to be used in vessel building for the Pacific Mail Company.

The Atlas Foundry and Engine Works, Coatbridge, with whole fixed machinery and plant, was exposed to public sale at 1400*l.*, and after some competition sold for 1655*l.*

The Manufactured Iron shipped from Glasgow and Greenock last week embraced the following denominations:—Bar, 147 tons; wrought, 1 ton; railway, 1191*l.* value; bolts and nuts, 3*l.* value; rope, 100*l.* value; pipes, &c., 491 tons and 835*l.* value; cast goods, hoop, 34 value; galvanised, 1561 tons and 5*l.* value; galvanised wire 711 tons and 399*l.* value; hollow ware, 120*l.* value; stores, 13*l.* value; ranges, 11 tons. We also notice a vessel loading at Kingston Dock a cargo of about 650 tons gas pipes and connections, and other gas-making material for Ibrail. The pipes, &c., bear the brand of Abbey Foundry, Paisley.

Coalmasters' books are pretty full of orders for shipment, especially for steam coal, with several cargoes of "Watson's Hartley coal" filling for the Black Sea, Mediterranean, and Baltic. The coasting trade is also brisk, and prices are, if anything, firmer. The total shipments from the Scotch ports for the week just ended amounted to 37,062 tons, against the slightly increased total of 37,259 tons in the corresponding week of 1870. Colliers are fully employed; in some districts more hands could be engaged, and wages run from 4*s.* 3*d.* to 5*s.* per day for the short darg.

The firm of C. and A. Christie, coal and ironmasters, Tranent, Haddingtonshire, appears in the *Gazette* of the 7th inst.; also the name of James Griffin, coal merchant in Arbroath.

Unabated prosperity continues to attend the Clyde Shipbuilding

Trade. There have been several new contracts entered into during the week; and Mr. J. E. Scott has been granted provisional protection for improvements in building iron steam or composite ships. It may be also of some importance to notice that several of the Clyde shipbuilders are removing their shipyards further seaward, in order to secure increased accommodation. Messrs. Elder and Co. are removing their engineering works to near their shipbuilding yard at Fairfield, Govan. It is also reported that Messrs. Napier, of Glasgow, are about to remove their shipbuilding yard from Lancefield to the mouth of the Black Cart, both sides of which they have feued; and Messrs. J. and J. Thomson, engine builders, have feued ground on the bank of the Clyde, opposite the confluence of the White Cart with the Clyde, known in Paisley as the "Water neb." Messrs. Thomson were looking after ground in the vicinity of Greenock, their premises near Glasgow being quite inadequate to accomplish the work which is in their offer.

At the monthly meeting of the Association of Engineers, held last week, Mr. Charles H. Reynolds, jun., in the absence of the President, in the chair, Mr. Alexander Reid, of Partick, read a very able and thoroughly practical paper on "Some of the Causes affecting Ships' Oscillations," in which he detailed with precision the different requirements to be taken into consideration in the construction of sea-going vessels, so as to secure the greatest amount of safety when in rough water, and subject to oscillations having a tendency to capsize. An interesting discussion followed, in the course of which reference was particularly made to the stowage of vessels and the designs of our recent armour-clads, at the close of which a hearty vote of thanks was accorded to Mr. Reid for his paper, and a similar compliment having been paid to the chairman for presiding, the meeting was brought to a close.

TRADE OF THE TYNE AND WEAR.

April 13.—Owing to the prevailing contrary winds, the supply of vessels has been very limited lately, and the demand for coal for London and the coast has also been somewhat limited. The wind, however, changed considerably more to southward on Monday, and a large fleet of vessels have now arrived, and large quantities of coals are being shipped for export abroad especially. The export coal trade has been extremely good since the opening of the north-eastern ports in Europe, and the close of the Franco-German war. From Browne's "List" we now get the result. The total exports from the north-eastern ports in March were 493,534 tons, against 388,894 tons in March, 1870—a most remarkable increase, amounting to 104,640 tons.

The steam coal colliers in Northumberland are nearly all working full time, and there is a fair prospect for that trade. A good understanding also exists at most of the works between the masters and men. At the Dudley Colliery there has been some agitation for higher rates, and fears are entertained that a strike may take place, although the men have been offered an advance on the present rates. They have, it appears, applied for an advance, and the masters have agreed to give one-half the sum asked for; this, however, does not satisfy them, and they have, therefore, given a month's notice that unless their demands are complied with they will at the end of this month (which will occur three weeks from the present time) cease working.

The strike at Thornley Colliery shows signs of coming to an end, as it must certainly do soon, as there is no question of wages in it at all, the only question being the right of the masters to employ whom they choose. This right they claim, and must enforce at all hazards; and it must be noticed that it has never been denied that the prices given by those masters are such as to enable the men to earn as high wages as any other set of men in the trade, and therefore some other reason must be found for the great amount of dissatisfaction which has been shown here for some considerable time. The men the masters now refuse to employ are charged with being the cause of the dissatisfaction to a considerable extent, and this is surely a sufficient reason for refusing to employ them. The numbers of men now at work are swelled every day from the ranks of the unionists and by the employment of strangers, so that the ill-advised and unjust strike must soon come to an end.

Iron Shipbuilding, Marine Engine, Pig-Iron, and indeed every branch of the iron trade without exception is exceedingly brisk, and still improving. The demand for pig-iron continues good, and also for rails for exportation, and although the make of both kinds of iron has been considerably increased lately, the stocks have decreased—a most significant fact, and one which quite justifies the advance which has been made in prices.

The rolling mills erected a few years ago at Messrs. Abbot's works, Gateshead, have been very busily engaged some time, and to a great extent they are employed in rolling iron of a high class obtained by an admixture of the Ridsdale pig-iron with the ordinary iron of the district. A considerable quantity of this iron is used in the manufacture of ordnance at the Elswick Works, and it must, of course, be of very high quality, no doubt the best yet manufactured in the North, and not easily surpassed in any district.

At a Polytechnic Exhibition and Bazaar at Cramlington Colliery there were a number of models of steam-engines, of nearly every description, contributed by Messrs. Murray, engineers, of Chester-le-Street; Hart, West Cramlington; Ditchburn, Newcastle; Forster, Bebside; Thompson, Howdon; and William Tait, of Cannoek and Rugeley, Staffordshire. The above were a remarkably interesting feature of the exhibition, and as they were all set in motion by steam by Mr. Thomas Maughan, the interest usually attaching to such objects was very considerably increased. The model contributed by Mr. William Tait, of Staffordshire, showed an improved method of raising and lowering the cage at the pit's mouth, and was very much and favourably criticised by the visitors. Another interesting object was the original model for the High Level Bridge, lent by Messrs. Hawksand Crawshaw, of Gateshead, whilst much attention was given to the cases of very beautiful spars and minerals contributed by Messrs. R. Rutherford, of Newcastle, and Simm, West Cramlington.

MECHANICAL VENTILATION OF COLLIERIES.—The large Guibal Fan, 45 feet diameter, erected at the Usworth Colliery, is now working regularly, and the results so far are quite satisfactory; it is only worked at a slow rate as yet, but even at this rate, about 35 revolutions per minute, an excellent ventilation is produced, and a considerable increase has taken place in the quantity circulated, as compared with the quantity formerly produced by furnaces. When the machine is worked up to its maximum speed the quantity produced will be enormous. Some experiments are to be made with this Fan to-morrow (Friday), when a considerable number of viewers and engineers are invited to be present, and after the completion of the experiments, which are expected to be highly interesting and instructive, a luncheon is to be provided for them at Usworth Hall, the residence of Mr. S. B. Coxon, the manager of the works. Mr. George Elliot, M.P., Mr. Jonassohn, and other influential gentlemen, are expected to be present. A full report of the experiments and proceedings will be given in next week's Journal.

WARNING TO COLLIERIES OWNERS.—A case of considerable importance was entered for trial before the Barnard Castle magistrates, on Wednesday, in which Mr. Summerson, of Barnard Castle, was charged at the instance of Mr. Willis, Government Inspector of Mines for South Durham, with having omitted to adopt the Government regulations for the proper working of his colliery on Cockfield Common, near West Auckland. Mr. H. J. Marshall, of Durham, prosecuted on behalf of the Government, while Mr. Nixon, of Barnard Castle, appeared for the defendant. Mr. Willis, the Government Inspector, was present during the proceedings. Only one magistrate (W. T. Hustler, Esq.) was in attendance, and the clerk suggested the propriety of some arrangement being come to in the matter.—Mr. Nixon said a very serious penalty was involved in the case. He had only recently been instructed, and after a conversation which he had had with Mr. Marshall he was of opinion that an arrangement might be made.—Mr. Marshall said the present prosecution was not instituted by the Government authorities with any vindictive feeling, but was merely to show colliery owners that they could not carry on collieries without adopting the proper regulations. On Feb. 11, in consequence of the enginemaster at the colliery having resigned the handles of his brake to another man, a boy was pulled over the pulleys and lost his life. The accident caused the Government Inspector, Mr. Willis, to visit the colliery, when he found that not only were there no rules in force, but there had not been any for a number of years. Mr. Willis told the owner of the colliery he ought to have rules in force, and a copy of regulations had since been forwarded to the Inspector, thus showing a wish to comply with his orders. The prosecution had no wish to press the case unduly against the defendant, but wished to warn owners that they could not carry on collieries without rules.—Mr. Nixon said Mr. Summerson was merely a trustee of the colliery on behalf of a relative. As

elved notice that an extraordinary general meeting will be held at Pontefract on April 29, for the purpose of laying before them the final accounts of the liquidators, in accordance with the Companies Act, 1862, the official liquidators of the company being Messrs. Pearson, Norris, Maw, and Rowbotham. Thus is this unfortunate and ill-managed concern brought to grief.

April 13.—It cannot be said that the works are yet fully occupied, but clearly there is considerable improvement in this respect, the hands in all departments being more regularly employed, and especially in the rail branch, where a turn or a turn and a half more time is made per week than was the extent two months ago. There is a steady demand for railway iron. Contracts, chiefly on account of the Southern American States, are secured from time to time, and at several of the larger establishments these engagements continue to afford the largest proportion of employment. There are still signs of increased enquiries coming from the Northern States, and British American requirements are expected to be large this year. It being now so near the opening of the Baltic season, it is a little surprising that larger engagements have not been entered into. The most of the demand for railway iron on account of the Russian empire. So far the orders for rails and bars have been comparatively small, although it has been expected that large enquiries would have been made of Russian account early this month. Manufacturers have, however, experienced some disappointment in this respect, which may, perhaps, be attributed in some measure to the earlier contracts being placed in the hands of North of England makers. There is also, perhaps, a little uneasiness at the warlike movements of the Russian army, which may further retard the demand in home transactions for railway iron. Railway bars, bridge-work, plates, &c., are in average request, both for home and foreign purposes. The enquiry for steel rails is rapidly increasing, and is at present, perhaps, larger than has ever before been experienced in this district. Naturally, therefore, a good deal of attention is turned to this branch of manufacture, and it will not be surprising if, in a comparatively short time, the production of steel rails be doubled, or even tripled. It is not, however, scarcely anything fresh for comment this week: prices are firmly maintained.

The Steam Coal Trade must be pronounced to be in a rather unsatisfactory state; in fact, far from that activity being experienced which was looked forward to, several unexpected difficulties have arisen. The first was the reduced out-put at the collieries, consequent upon the men in several localities having shown an inclination to resist the reduction. At many of the pits the colliers seem to work as if it were against their will, and some have continued to stand out, notwithstanding the resolution passed at the mass meetings to accept the reduction for two months. This has had the appearance of a general determination on the part of some of the colliers to reduce as much as possible the output for the first month, with an ulterior object in view. The hauliers have also been out in the Rhondda Valley, in consequence of the reduction in their wages being larger than that of the coal-cutting hands. That disagreement has, however, been adjusted, the colliery proprietors having promised that the reduction shall not be more than 5 per cent. It is to be hoped, therefore, that something like the usual quantities will be sent down the ports for shipment, for the remainder of the month. It is not, however, without further difficulties, forming a barrier to the carrying on of business in the steam coal trade, especially with that country, the purchases not yet having reached the magnitude which was looked forward to. There is some hope entertained that in another week or two the Versailles Government will have obtained the complete mastery, and that trade will then begin to revive. But, on the other hand, some anxiety is felt as to what course the colliers will take at the end of the month for which they have accepted the reduction, and it is not altogether probable that the coal will be sold at the quotations there is no material alteration, prices obtained being far from remunerative to many of the colliery proprietors. As a proof of the effects of the disturbed state of the coal trade, it may be mentioned that the traffic earnings of the Taff Vale Railway have decreased for several weeks past.

The arrivals at Swansen include—the Guanita, from Carloforte, with 700 tons of calamine, for H. Bath and Sons; Marie Ange, from St. Malo, with 200 tons of lead ore and 60 tons of zinc ore, to order; L. Sempieur, from Bilbao, with 400 tons of iron ore, for James Strick; Peddler, from Memel, with 400 tons of iron ore, to order; Roskoa, from Friedrickstadt, with flooring boards, for Elford, Williams, and Co.; Barry, from Bilbao, with 330 tons of iron ore, for W. H. Tucker; Minnehaha, from Bilbao, with 348 tons of iron ore, to order; Glenwary, from Bilbao, with 480 tons of iron ore, for the Dowdals Iron Company.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

GORSEDD AND CELYN LEVEL.—The first parcel of lead from this mine was sold on Thursday, realising the high price of 12*l.* 1*s.* 6*d.* per ton. Great credit is due to the managers for the economical manner in which the enormous work of re-opening the levels has been accomplished.

PAWTON HEMATITE IRON MINES (near Wadebridge, Cornwall),—I am glad to hear that these extensive mines are about to resume working by the Messrs. Levick and Simpson, of the Blaina Ironworks, South Wales; and by the firm ship about 8000 tons of iron at Wadebridge within the year. If the mines are properly worked, they will have one of the best properties in the West.

WHEAL PENHALE.—About a mile north of the Pawton Iron Mines is Penhale, which is about to be re-worked. They ceased working in 1855, when, from one lode, north and south, shaft down some 40 fms. from surface, they sold lead and copper worth nearly 7000*l*. There are several other lodes in the sett about as promising.

THE TAMAR TIN SMELTING COMPANY has bought by tender 14 tons Drake Walls Mine tin, at 78*l.* 10*s.* per ton.

AT BOTALLACK the improvements are spoken very favourably of. It is said that the 150 east is worth for tin 30*l.* per fathom; also the 190 north, on the Bal lode, is opening good tin ground. At Wheal Hazard, also, several points are being aimed at, from which important discoveries are anticipated, especially the intersection of South Wheal Cock lode.

It will be seen by an advertisement in another column that Mr. GEORGE HENWOOD at length takes his postponed visit to Cornwall, for the purpose of inspecting mining properties. Parties desirous of obtaining his advice should notice his address for the ensuing week.

BIRDSEYE CREEK (Gold).—The directors have advice from G. D. M'Lean, the superintendent of the Sweetland Creek Company's property, as follows:—I have perfected the title to this company's property, with the exception of about 13 feet of Nece's and West's claim (the whole extent of which is 25 acres), which was owned by the late John Nece and his wife. While at Nevada, looking up the title, I conversed with a number of persons about the claim, and I am now more in faith, and have a better opinion of the property than before. The ditch adds vastly to the value, and will be a great benefit to the property. The company will make a good investment, and will receive a handsome profit upon the amount of cost.

SWEETLAND CREEK (Gold).—The advices received from G. D. McLean, the company's agent, continues of a very satisfactory character.

VAL ANTIGORIA.—Thos. Roberts, April 3: Good progress is being made in driving the 30 end south on No. 2 lode; the size of the lode in this end has been very variable in the past month, yielding at times as much as 2 tons of ore per fathom, and at times producing nothing to value. We are pleased to say that it has commenced to open out again, and yielding at present 3 tons of ore per fathom. It is, however, very probable that the ore so far discovered in the 30 is only a commencement of what will be found in this level, that the main part of the course of ore will be found dipping down from the 20 to the 30 this month. It is, therefore, commenced a new stope in the back of this level, the lode yielding $\frac{1}{2}$ ton of ore per fathom. The 20 end south is still at present; the stope in the back of this level yield 1 ton of ore per fm. —No. 1 Lode: The stope in the back of the 20 yields 1 ton of ore per fathom. We intend commencing a new stope this month in the bottom of the 10 on this lode. After the completion of the incline shaft to the 30 the driving of the cross-cut east in the 20 was resumed. This is now in 184 $\frac{1}{2}$ metres. We have also commenced a new stope in the 20, the distance of the new stope to drive to cut No. 1 lode is 100 metres. The 10 end south, the past month we have commenced a new pit for a deposit for the slimes from the mills. The slimes are consigned on the second to Sig. Carlo Menozzi 1 ingot of gold, weighing 762 grammes, equal to 24 ozs. 10 dwts. 5 grs., obtained in the month of March from 44 $\frac{1}{2}$ tons of ore.

[illegible]

April 13.—Whilst the advices from the Continent have necessarily an unfavourable bearing upon the Iron Trade, it is satisfactory to note that the iron trade of the North is generally in an improving state. From the Cleveland Ironmasters' Association returns we observe there has been an increased make of pig-iron during March, as compared with February, of 19,981 tons. The total make for the month ending March 31 was 161,049 tons, and this quantity will be still further increased by the additional new furnace which Messrs. Swan, Coates, and Co. have just blown in alongside the three they had already in blast at Cargo Fleet, near Middlesborough; and Messrs. Cochrane and Co., the Ormesby Ironworks, also near Middlesborough, who will shortly have ready for blast their fourth furnace. The deliveries of pig metal are just now very large. The scarcity of vessels to convey the quantity of iron required by water is much felt, but, notwithstanding this, the tonnage now being cleared from the Tees is heavy. Last month there were 14,912 tons of pigs and rough iron shipped from foreign ports, being a decrease of 1,018 tons, compared with the corresponding month of last year. The tonnage cleared from the port of Middlesborough in March was 15,346 tons, or a decrease of 3817 tons upon March last year. The stock of pig-iron in makers' hands on March 31 was 116,689 tons, which, notwithstanding the increased make of 20,000 tons, was a reduction of 2308 tons upon February. The warrant stock stock also shows a decrease of 800 tons for the month, the total contents of the store being 1,000 tons. There are, according to the return from which we are taking our figures, five furnaces in blast in Cleveland—116 in and 9 out; there are also 8 furnaces in course of erection.

The Quarterly Meeting of the North of England Iron and Allied Trades was held on Tuesday, at Middlesbrough. Unfortunately, the day was a holiday, and there was not, therefore, so large a gathering of gentlemen from a distance as is usual at a quarterly meeting. There was, however, a good muster of local gentlemen, but the business was unimportant. The enquiry for pig-iron was active, and some few orders were booked, but no serious orders were taken. There is a probability for forward delivery, except at an advance upon present quotations, which are for No. 1, 50s. 6d.; No. 3, 47s. to 47s. 3d.; No. 4, 45s. 6d., net cash at makers' works, or f.o.b. on the Tees. Home consumption is great just now with the busy time in the mills; and, with the increasing demand for foreign account, prices are likely to be still more. There was nothing of particular interest shown at the meeting.

In the Finished Iron department things are looking more encouraging every week. For rails the demand is stronger, and orders for Russian and American houses have lately been placed with firms in this district. Most rail-makers are busy, and have plenty of work to occupy their mills for a considerable time. The Easter holidays have interfered with the regular working of the mills and forges, but generally the works have got well started again. The Plate Trade is in active condition, and slightly higher prices are being obtained. Enquiries are numerous, and large quantities of plate are being rolled in the North. The demand for bar-iron is also improving, and for pipes and foundry castings enquiry is better.

For Household Coals the requirements have not been so large lately, and some of the pits drawing this quality have not been so busy. The steam and gas coal pits have, however, been drawing full complements. For best cokes the demand is increasingly heavy.

April 13.—The observance of the Easter holidays is this week so completely engrossing the attention of our working people that industrial operations are everywhere conspicuous by their absence, the blast-furnaces being the only exceptions to the rule of inaction which pervades the great iron and coal producing districts of North and South Staffordshire. In the northern part of the county the miners are making a movement with the view to secure an advance in the rate of wages. A circular on the subject has been addressed to the leading employers, and suggesting that the advance asked for should be equivalent to the last reduction. The moment for such a request to be made is at the least inopportune, seeing that by the flooding of the mines the cost of coal to the consumer has already been augmented in many cases as much as 25 per cent. Any further advance in price would be of serious consequence both to the iron and earthenware trades of the district. The demand both for pigs and finished iron continues to improve, and it has been decided that no change in wages or quotations shall be made this quarter.

The Quarterly Meetings of the South Staffordshire Iron Trade were held at Wolverhampton yesterday, and in Birmingham to-day (Thursday). At Wolverhampton the attendance was alike influential and numerous, as well of traders in finished as of pig-iron. Negotiations were brisk in both departments, and there was a decidedly improved tone upon the meeting three months ago. First-class pigs are very firm in price, notwithstanding the recent advances. Materials for making steel, whether in the cast or the puddled state, were all up, and decidedly difficult to get in large quantities with anything like a reasonable time. The demand for steel rails, in particular, exceeds all former experience, and it will become increasingly marked. For such goods orders are coming forward from the United States very freely, and the higher rates do not check transactions with that country, notwithstanding that there are five firms out there who are using the Bessemer patent, and are fast extending their means of production. Finished iron ruled strong, with an improving demand. Foundry work is in well sustained request throughout the district, machine castings being, as last reported, among the more prominent features of demand. Coal and ironstone continue brisk, at last quotations. The recent sinkings in the Cannock district are in most cases fulfilling the expectations that had been raised respecting them, and further enterprises in a similar direction are being matured. The Sandwell scheme is interrupted by the flooding of the trial shaft, but the difficulty will readily be surmounted when the new pumping-engines are set down.

At the Birmingham meeting there was a large and influential attendance, including representatives of most of the leading iron firms of this and neighbouring districts, and many merchants, manufacturers, and brokers from a distance. Although the tone of the meeting was cheerful, and prices were well sustained, the aggregate business transacted can be scarcely said to have fulfilled the expectations inspired by recent symptoms of improvement. Pig-makers were relatively more fortunate than manufacturers of finished iron, and, with few exceptions, those who did not dispose of their quarter's make at Wolverhampton found ready customers on better terms than were obtainable on last quarter-day. For hematites the demand appeared to exceed the supply, though steel is not a staple manufacture of this district, and the leading qualities of native pig were scarce, and proportionally firm at from 3*l.* 15*s.* to 4*l.* 5*s.* for No. 1 all the way to quarter-day, and 4*l.* 10*s.* to 4*l.* 15*s.* per ton for round metal. Shropshire pig was quoted at 3*l.* 15*s.* to 4*l.* 15*s.* per ton cold, and west coast hematites 4*l.* 10*s.* to 4*l.* 15*s.* per ton. Ores were in active request at 16*s.* to 18*s.* for hematites, and 6*s.* 9*d.* to 7*s.* 6*d.* for c. l. l. For best bars, for which a tolerably brisk demand is experienced from the United States, prices are firm at from 7*l.* 5*s.* to 8*l.*, and other kinds in proportion, being, in most cases, a slight advance upon the prices lately demanded. Generally speaking, the quotations of second class firms for finished iron were fractionally higher than those of the quarter-day, though still very much under the official list on which the wages are based. Trials of the new American patent steam rollers for manufacturing purposes, and the bulk of the foreign specifications now in hand have been negotiated at the works or by correspondence. Generally, the condition of the iron trade here may be described as quiet, but improving. The reduction of the Bank rate contributed not a little to the cheerfulness of the meeting. As usual at the quarterly meeting, a few of the latest novelties in connection with the iron manufacture were exhibited in the hall. These included a quarter-day's make of a patent stone-breaker or ore-crushing machine, specimens of Ash's mangle, and a new design of a few of the new rolling and puddling-furnaces. The two former are well known to the trade, but the latter, an American invention, designed to supersede hand labour in puddling, is a novelty, and attracted a good deal of attention.

The dispute at the Shakespeare Foundry, Wolverhampton, to which we referred last week, has, we have reason to believe, been virtually settled, the firm having yielded one of the points for which the work-people contended. The dispute and its serious consequences will, we trust, lead to some modification in the systems of reckoning which now prevail in the hardware trades throughout the district. In the iron and coal trades there is some approach to uniformity in this matter; but in the hardware trades there is none. The great want of the district in this respect is, generally speaking, fewer "draws" and more frequent settlements, an arrangement which

April 13. The activity now prevalent in all our great centres of the Iron Trade has been fully extended to the works in Derbyshire, at most of which business is very brisk indeed. Gas and water pipes in particular appear to be in very great demand, so much so that in some instances the produce is far below the requirements. At Remshaw, near to the Eckington Station, a large business is being done, and the same remark applies to the extensive establishment belonging to the Sheppridge Company, where a very large quantity of pig-iron is being made. At Kidley, also situated in the Derbyshire Company, there is a gas of the smallest calibre up to 56 inches in diameter, can scarcely be supplied sufficiently expeditious. At the same place pillars, girders, cylinder bottoms, and other material in castings are being largely produced. The demand for House Coal has been well maintained, considering the advanced period of the season, owing in a great measure to the low rates prevailing, consequent on the dispute between the collieries and the Northern Railway Company. In Newark Coal there is a great deal more mingling, and an increased tonnage is being sent to the South of England, and also to Birmingham and the West, in gas quantities. In the coal field between Sheffield and Chesterfield an improving business is being done; and from both Dronfield and Unstone some hundreds of tons are now being sent to the metropolis monthly, although up to a little more than a year ago the trade was considered to be almost entirely dead. In the Valley of the Great Ouse, however, has made all the difference, and new markets have been found, so that the development of the minerals with which the Valley may be said to teem is now rapidly taking place. In addition to coal, there are some valuable beds of ironstone, which will now be realised, whilst there is every appearance of a very large production of coke, seeing that Messrs. Bambridge and Co. have completed

There is no change with regard to the business doing at the heavy armour-plate mills at the great Sheffield establishments of Brown and Cammell, which are likely to be very busy for a long time to come, seeing the extent of our coast yet undefended, and the number of armour-plated ships to be laid down in the Government dockyards, and others by private firms. Rails and railway materials are still among the specialties in request, although as yet the orders are not to that extent expected, but as shipments to the North of Europe are now being made, an immediate improvement in the quarter named is anticipated. Malleable iron in the shape of machine fittings, and for other purposes, is also in good request. Wheels, tyres, axles, and cranks are more largely produced, and such is the case with the other even description of Bessemer goods, including the forgings, tyres, cranks, &c. There has been some improvement in the best qualities of table cutlery, razors, and files.

At Rotherham and Parkgate a good business continues to be done at the mills and foundries. The works belonging to the Parkgate Company are still busy in plates for shields, rails, and hoops. The works at Thorncliffe and Chapeltown are kept well going in pipes, gas material, and ornamental castings for builders. The collieries belonging to the firm are also doing well, turning out a rather brisk trade and just now for gas, nuts, as also for coke, of which some hundreds of tons are now produced weekly.

In the South Yorkshire district there has been no material change in the business doing in House Coal, the low rate by the Great Northern having had the effect of stimulating the London merchants to be much larger purchasers than would otherwise be the case. In the Steam Coal also there has been rather more doing to the metropolis, for the same reason. It is thought, however, that the bulk of the marketable coals are being taken by the foreign steamers plying to Russian and other European ports, and the members of the South Yorkshire Steam Coal Owners' Association are gradually improving their position. The new coal railway to London via Lincoln is attracting a good deal of attention just now, seeing that in about ten days it will pass into the Committee of the House of Commons, where it is said that it will be opposed by the friends of the Great Northern, as well as by the more or less interested Mr. R. Baxendale, the manager of the Bill, as much to his capacity, as a colliery proprietor as a parliamentary solicitor, and under his guidance it is believed that it will weather the storm of opposition which has been raised.

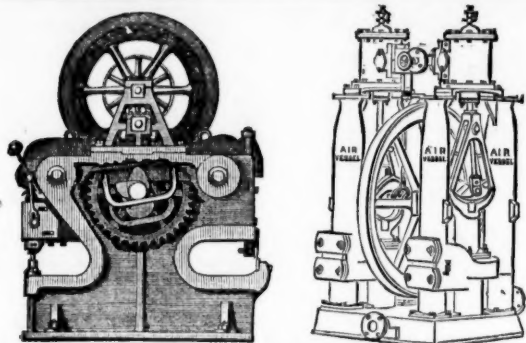
THE COAL TRAFFIC BY RAILWAY TO LONDON FROM YORKSHIRE AND DERBYSHIRE—THE BATTLE OF THE RATES.—The returns of the quantity of coal conveyed to London during the first quarter of the present year from Yorkshire and Derbyshire by the various lines of railway having termini there are of more than usual interest, owing to the dispute which has now existed between the Midland and Great Northern Companies for exactly three months. The fierce contest which has so far been carried on has been the means of largely increasing the traffic from the two coal fields, seeing that the metropolis merchants have taken full advantage of the low rates offered, and purchased extensively in the cheap carriage markets. They have thus been making a clear profit on the rates alone of from 8d. to 2s., and now of 3s. 3d. per ton, the latter being the difference in the present charge and that made up to Jan. 14 last, as the London consumers have not participated in the advantage of the cheap freight, whilst the companies engaged in the bitter strife must have lost more than £100,000 since its commencement. The tonnage carried during the first quarter was the largest since coal was first conveyed to London by railway in 1845, in which year the City dues were p. 140 on 8377 tons. The total increase, when compared with the same period of 1870, was 92,316 tons, of which the Midland takes credit for 78,036 tons, leaving only 14,280 tons to be divided amongst all the other lines.

April 12.—One of the chief topics now under discussion is that relating to a dispute between the Crown officials representing the Office of Woods at Colford. The Crown receiver—a legal man, by the way—and the gaveller, Mr. Brown, have for some time been dissatisfied with the irregular way in which the assistant surveyor has managed the business of the office. When the present gaveller was appointed Mr. Langhan, the surveyor, was still retained, and an arrangement came to that Mr. Brown should be allowed to exercise his profession as a mining engineer—his interests chiefly being in Wales. The result is that he is not expected to be at the Crown's local office more than two days per week, the general business being performed by Mr. Langhan. Information, however, has been laid against Mr. Langhan before Mr. Howard, one of the commissioners, which has led to his suspension. An enquiry is, therefore, being conducted on the part of the Crown by Mr. Wintle, solicitor, Newnham, into the charges against Mr. Langhan. It is not yet clear how serious the charges are, but the complaint is, being based on the irregular way in which he conducted the business. There are rumours of other reasons for desiring the removal of Mr. Langhan, but as they are not yet matters of fact, they must of course be taken for what they are worth.

The other business which is now engrossing the attention of the persons connected with mineral property is the revised draft of a Bill, brought in by the Crown, making further provision respecting the opening and working of mines in Her Majesty's Forest of Dean. Some of those most likely to be affected by it have had an interview with Mr. Commissioner Howard, for the purpose of having the objectionable clauses revised, so as to answer their case. This is said to have been done, but, looking at the clauses of the Bill, we are very doubtful whether we fully believe, but it is said by some that they have left the poor free miner to be the prey of the lion. We are told that the interests of the Crown in the mines of Dean Forest amounts to only one-fifth of the profits derived from working the mines and coals. Such an interest, then, virtually, is nothing more than a partnership, and although they (the Crown) are not at one-fifth of the cost of opening up any mine, they, nevertheless, take to themselves the right to frame laws which will deprive the miner of his earnings. It is the right to frame laws which will deprive persons having rights to the mines. These persons are exclusively the free miners, and there is not a single proprietor in the whole district who has not had his or her property through them. The 57th clause of the proposed Act is most objectionable, but it seems that the committee representing the Dean Forest Miners' Defence Association have no eyes with which to perceive it, and there are many in the district who have not the least faith in them. In fact, the so-called committee means the interests of a few wealthy persons, a body of poorer but equally influential persons must suffer. When the proper time arrives we will give a more full and detailed report of this important proposed alteration in the laws of the district.

The shareholders of the New Bowson Deep Coal Company have re-

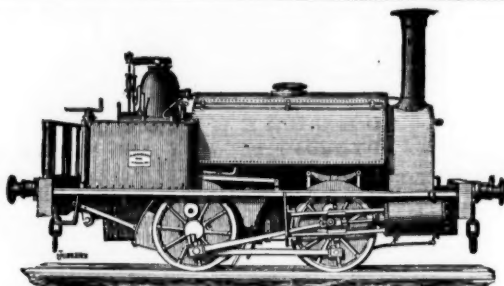
LONDON—SHOW ROOMS, 45, OXFORD STREET, W.
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JOHN CAMERON,

MAKER OF

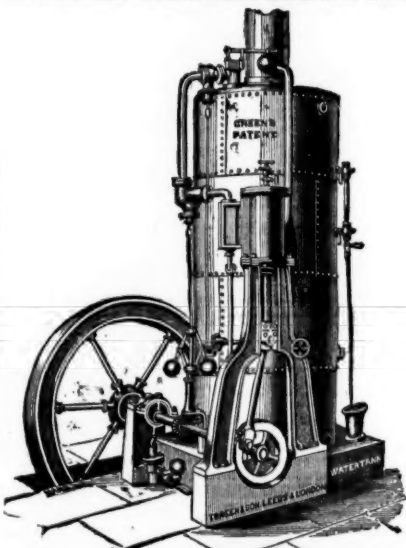
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PUNCHING MACHINE, BAR SHEARS, AND RAIL
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For Exportation they are invaluable, being sent out in
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immediate use.

The above Engines and Boilers are constructed in an exceedingly substantial
and simple manner, every part being easy of access, consequently can be readily
understood and managed; they are fitted with governors, equilibrium throttle
valve, stop valve, safety valve, feed pump, water and steam gauges complete.
The foundation plate answers the purpose of feed water tank, in which the
water is heated before passing into the boiler, and also of an ash-pit, and no
brickwork or foundation is required.
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FORGINGS OF EVERY DESCRIPTION.
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Where the largest stock of steel, files, tools, &c., may be selected from.



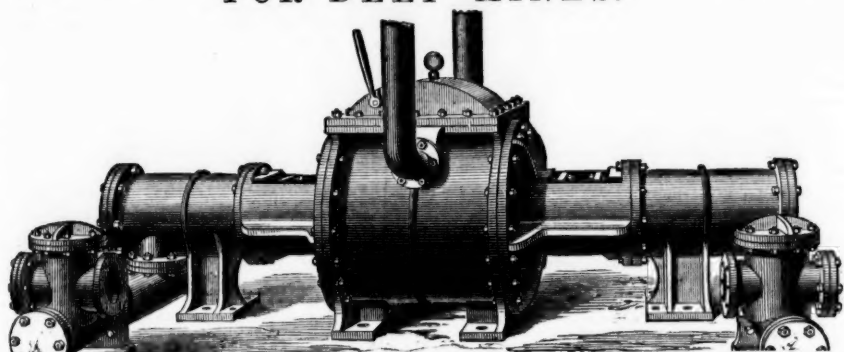
By a special method of preparation, this leather is made solid, perfectly close
in texture, and impermeable to water; it has, therefore, all the qualifications
essential for pump buckets, and is the most durable material of which they can
be made. It may be had of all dealers in leather, and of

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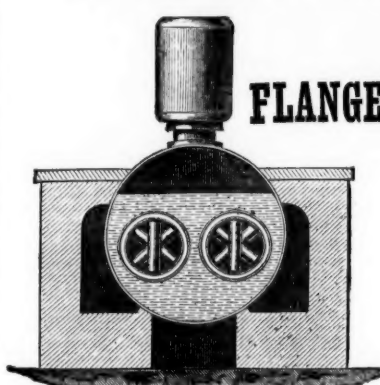
The Machine erected in South Wales (at the Broad Oak Colliery, Loughor, near Llanelly), has a steam cylinder 40 inches dia-
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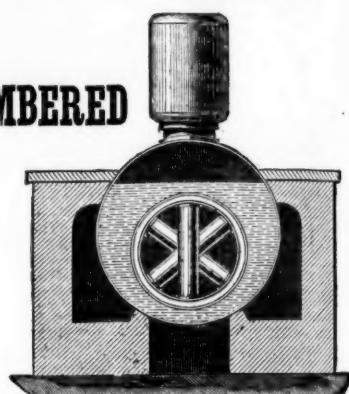
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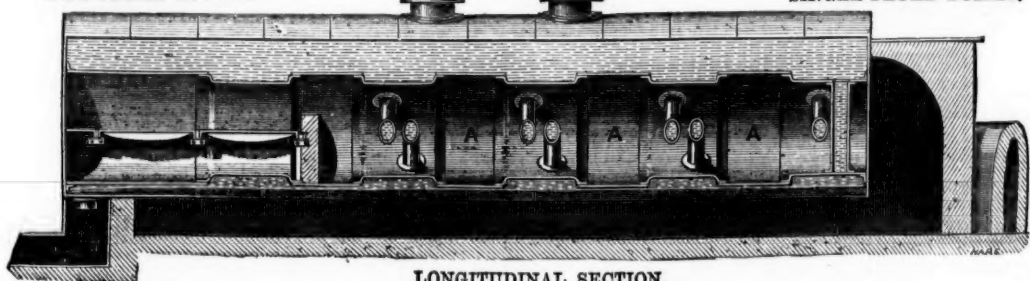
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THE FLUES OF THE ABOVE BOILERS ARE MADE OF TWO DIAMETERS, ONE RING OF PLATES BEING
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The cross tubes are placed in the smaller rings of the flue, so that any one can easily be taken out and replaced.
The larger rings of the flue act as reverberating, combustion, and heat-retaining chambers, greatly economizing the fuel.
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1½ to 30 tons. For wharf or railway.

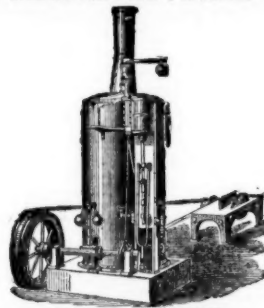
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For particular kinds of Machinery, the Oil may be specially prepared of a consistency and character
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"The lubricating power of this oil is equal to Sperm or Lard Oil.

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Every parcel of the Oil sent from the works bears the Trade Mark of the Firm.

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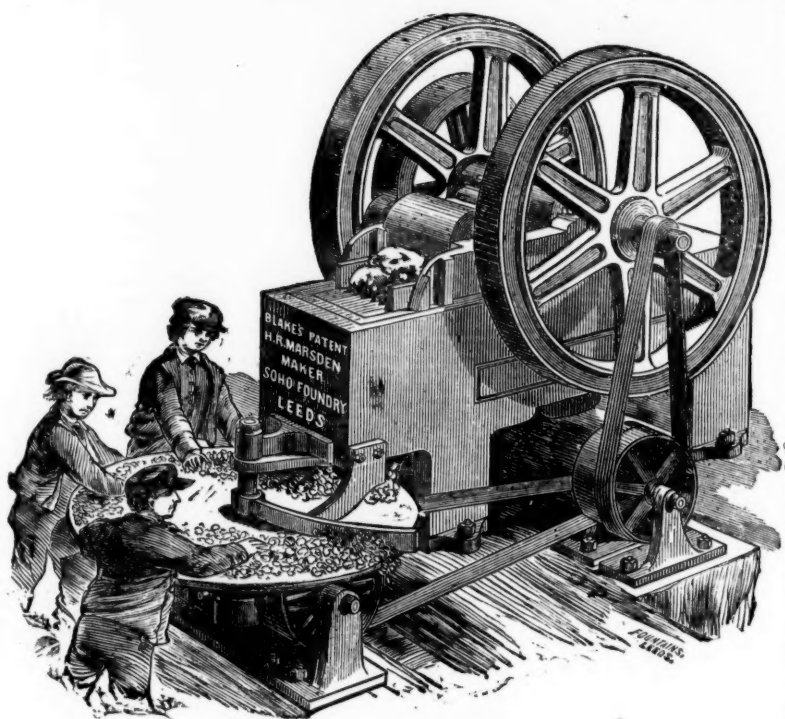
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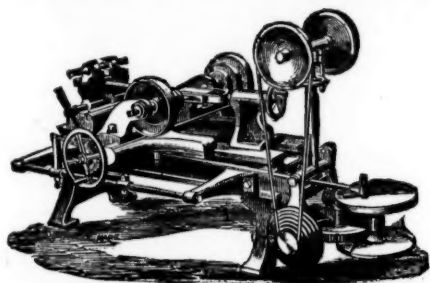
WM. G. ROBERTS.
General Frémont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate.

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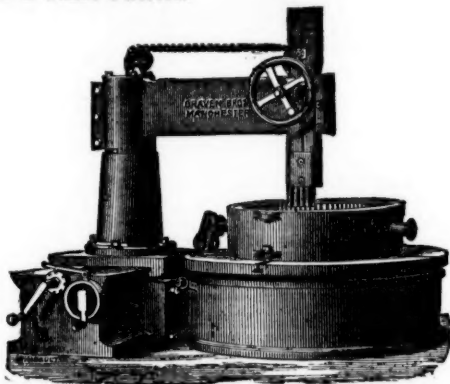
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The advantage of this Machine is, that the Drills are only requisite to be half the length of the Cotter-hole required to be cut, as they operate simultaneously from both sides of the object, meeting accurately in the middle, and doing the work in less than half the usual time, besides producing a smooth hole on account of short, stiff Drills being used, thus producing a much better class of work, hitherto unattainable by the Machines with one long Drill.

The Machine is made in three sizes, and often made with double set of Head Stocks, to drill both ends of a connecting rod at the same time.

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This Machine will Mould the Teeth of Bevel, Spur, and Worm Wheels, also Straight Racks, of any Pitch with a whole Pattern.



Some of the many advantages in the use of this Machine are, that the Teeth of Wheels are perfectly straight across the Tooth, no taper being required to draw the pattern; the Wheels are true in diameter, not depending upon a wood model, which sometimes alters in shape; Wheels of any pitch and form of teeth can be moulded without the use of a whole expensive pattern; and wheels to work into each other can be made mathematically correct in form, at the small cost of segment patterns.

The Machine is made in various sizes to mould wheels of any diameter.

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MAKERS OF EVERY DESCRIPTION OF MACHINE TOOLS,
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I am highly pleased with it as a most effective and durable lubricator."

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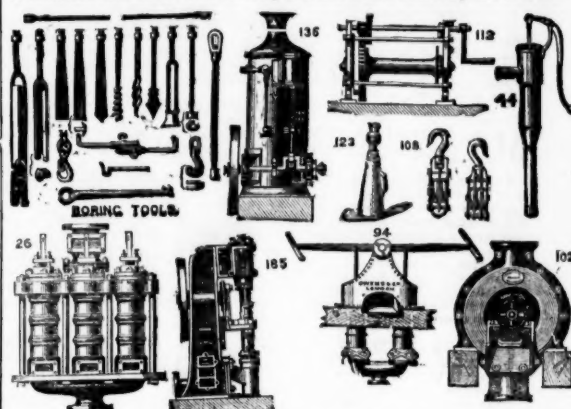
From CHATWOOD, STURGEON, AND CO., Bolton.
"The men were rather against it at first, but have now, by experience, learned to appreciate its good qualities. It answers our purpose so completely that we shall continue to use it and no other."

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**TURBINES, WATER WHEELS, WIND ENGINES,
THE HYDRAULIC RAM, FIRE ENGINES, &c.**

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GREAT ECONOMY

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CLEAR WIDE SPACE.

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CORPORATION STREET,

BELFAST.

The above drawing shows the construction of this cheap and handsome roof now much used for covering factories, stores, sheds, farm buildings, &c., the principals of which are double bow and string girders of best pine timber, sheeted with ½ in. boards, supported on the girders by purlins running longitudinally, the whole being covered with patent waterproof roofing felt. These roofs so combine lightness with strength that they can be constructed up to 100 ft. span without centre supports, thus not only affording a clear wide space, but effecting a great saving both in the cost of roof and uprights.

They can be made with or without top-lights, ventilators, &c. Felt roofs of any description executed in accordance with plans. Prices for plain roofs from 30s. to 60s. per square, according to span, size, and situation.

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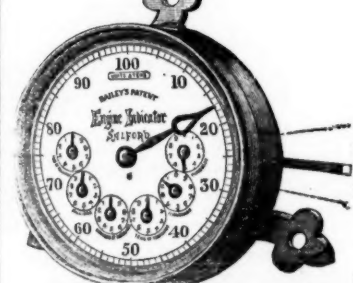
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Bailey's Test Pump for Boilers,

Pipes, &c.,

with Gauge to 250 lbs.

£10 10s.

BAILEY'S PATENT**SPEED INDICATOR,**

7 in. dial to 100 millions, £4 4s.

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Showing the true causes of Nervous, Mental, and Physical Debility, Lowness of Spirits, Indigestion, WANT OF ENERGY, PREMATURE DECLINE, with plain directions for PERFECT RESTORATION TO HEALTH AND VIGOUR IN A FEW DAYS.

The most important fact that these alarming complaints may easily be removed WITHOUT MEDICINE.

Is here clearly demonstrated, and the entirely new and highly successful treatment, as adopted by the author, fully explained, by means of which

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Securities of every description dealt in for cash or account.
We strongly advise the immediate purchase of Great Wheel Vor and East Llangynog. (We can offer 75 of the latter at £2 15s. each, or any portion of them, if applied for at once.) We are sure these shares will have a considerable advance. It is confidently believed they will go to £20 per share. Van, Aberdaunt, and Tincroft are also safe investments.
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MR. THOMAS THOMPSON, JUN., STOCK AND SHAREDEALER AND MINE AGENT, 5, WHITEHALL, LONDON, S.W.
I strongly advise the purchase of EBERHARDT and AURORA shares when they were at £14—they are now £40. Also SOUTH AURORA and ROMAN GRAVELS at their lowest prices. At the same time I advised the purchase of THORNHILL REEF GOLD and LLANDILOES WHEAL VAN shares, both of which will have a great rise in value. Thornhill Reef is unquestionably the cheapest foreign mining share, and when once the shares begin to move they will have a rapid rise, and be difficult to obtain. The importance of the discovery of the inflammable gas at Llandiloes Wheal Van will be better understood by reading the statement made by Capt. Williams at the Van meeting, in February, 1870, when they were seeking to cut the lode at the 45, where it was afterwards met with so enormously rich.

THE LONDON STOCK AND SHARE AGENCY.
165, STRAND, LONDON, IS PREPARED TO PLACE before any INVESTING INVESTOR particulars of TWO MINING PROPERTIES which will produce handsome profits on outlay.
This Agency has a large quantity of mining and miscellaneous shares for sale. Every description of stocks and shares bought and sold.

THE MINING SHARES INVESTMENT COMPANY (LIMITED) IS PREPARED TO RECEIVE APPLICATIONS FOR LOANS TO BE MADE BY THE COMPANY ON THE SECURITY OF SHARES IN DIVIDEND-PAYING MINES.
By Order of the Board, **CHARLES HURLBATT, Secretary.**
Offices, 6, Queen-street-place, London, E.C.

MR. THOMAS CARTER, MINE SHAREDEALER, BUSINESS TRANSACTIONS, at close market prices of the day, in all the LEADING SHARES.

SAFE AND PROFITABLE INVESTMENTS.
MESSRS. CAMERON AND CO., SHAREBROKERS, CHESTER, will forward on application IMPORTANT INFORMATION with regard to TWO MINES which are certain to have a GREAT RISE IN PRICE in a few months. Messrs. CAMERON and Co. devote special attention to Mines and Railways; they also effect Purchases and Sales, on the best possible terms, in Mines, Railways, Insurance, Hotels, Banks, Canals, Steam Ships, &c.; and every other description of Stocks, whether English, Foreign, or Colonial.
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Reports on any mine in the two counties, and every kind of legitimate mining business transacted.
Two hundred to three hundred per cent. quickly made, with perfect security, by an immediate investment in the MARQUIS OF LORNE TIN AND COPPER MINE. Everyone should apply for particulars.
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MESSRS. LISCOMBE AND CO., 39A, SOUTH CASTLE STREET, LIVERPOOL, MINING SHARE BROKERS.
Have the BEST and LATEST INFORMATION on all the LEAD MINES of WALES and the NORTH OF ENGLAND, and on all AMERICAN MINES, and are in a position to transact business in most of them at the closest market prices.
Messrs. LISCOMBE and Co. issue monthly the "Liverpool Mining Circular," containing special information on all the leading Welsh Mines, which can be had on application.

CAPTAIN SPRAGUE OFFERS HIS SERVICES TO INSPECT and REPORT on MINES and MINERAL PROPERTIES in SWEDEN, NORWAY, RUSSIA, or GERMANY. Has had eight years' experience in the Iron, Blende, Nickel, and Copper Districts of Sweden.
Address, "J. S.," MINING JOURNAL Office, 26, Fleet-street, London.

MR. SPARGO, BEING ON A TOUR OF INSPECTION THROUGH DEVON AND CORNWALL, will ATTEND to COMMUNICATIONS addressed to him at Tabb's Hotel, Redruth, Cornwall, up to Tuesday next, the 18th; the Royal Hotel, Truro, Cornwall, from Tuesday to Thursday; and the Albion Hotel, Plymouth, Devonshire, from Thursday to Saturday, the 22nd inst.—Gresham House, E.C., 14th April.

MR. GEORGE HENWOOD LEFT LONDON on Thursday for his SPRING JOURNEY OF INSPECTION IN DEVON and CORNWALL. His address for next week will be at the Terras Tin Mine, Grampond Road, Cornwall, from which point he will visit the Chiverton, Perranzabuloe, St. Columb, and St. Austell districts.
Further announcements will be issued as to future arrangements; in the meantime, letters addressed as above will meet due attention.

MR. R. SYMONS, TRURO, has 100 fully-paid SHARES FOR SALE, at 22s. 6d. The shares in the adjoining Mine (Terras) have been sold at premiums of 30s. and 40s. each. EAST TERRAS is declared by competent judges to be as good as Terras. The shares in this Mine are almost sure to be saleable shortly at a premium.—the prospects warrant it.
MR. SYMONS has also FOR SALE THREE SHARES (64ths) in HARMONY AND MONTAGUE, at £55 each. He would strongly recommend immediate purchase, the prospects being almost unequalled (vide Agent's reports).

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"One of the most elegant, comfortable, and economical Hotels in the three kingdoms."—The Field, July 31, 1869.

MESSRS. W. BRUNTON AND CO., SAFETY FUSE MANUFACTURERS, REDRUTH, CORNWALL, and BRYMBO, NEAR WREXHAM.

THE MINING SHARE LIST

BRITISH DIVIDEND MINES.									
Shares.	Mines.	Paid.	Last Pr.	Business.	Total Div.	Per Share.	Last Paid.		
15000	Alderley Edge, c. Cheshire*	10 0 0	—	—	10 0 0	0 0 0	Jan. 1869		
6000	Boscawell, i. c. St. Just	1 0 0	—	—	0 2 0	0 0 0	Apr. 1870		
200	Botallack, i. c. St. Just	91 5 0	—	220 230	590 5 0	5 0 0	Feb. 1871		
20000	Bronfod, i. Cardigan	2 10 0	—	2 1/2	2 12 0	0 1 0	Apr. 1871		
4000	Brookwood, c. Buckfastleigh	1 16 0	—	—	0 17 6	0 2 6	Mar. 1871		
5094	Breich Consols, s. i. Cardigan*	8 0 0	—	—	0 9 0	0 2 0	May 1870		
6400	Cashwell, i. Cumberland*	2 10 0	—	—	0 14 6	0 1 0	Dec. 1870		
916	Cargill, s. i. Newlyn	16 5 7	—	1 1/2	5 18 0	0 12 6	Apr. 1869		
2450	Cook's Kitchen, c. Illogan	19 14 8	—	24 22 1/2	32 13 0	0 5 0	Apr. 1871		
867	Cwm Eryn, i. Cardiganshire*	7 10 0	—	—	377 10 0	2 0 0	July 1869		
128	Cwmystwith, i. Cardiganshire	80 0 0	—	—	137 10 0	2 10 0	July 1868		
280	Derwent Mines, s. i. Durham	300 0 0	—	—	1149 0 0	4 0 0	Nov. 1870		
1024	Devon Gt. Consols, c. Tavistock	1 0 0	100	80 90	7 10 0	0 15 0	Aug. 1870		
1432	Dolcoath, c. i. Camborne	32 6 6	—	130 140	257 2 6	3 0 0	Apr. 1871		
12800	Drake Wallis, c. Calstock	2 10 0	1	7 1	14 11 0	0 1 0	July 1870		
6144	East Caradon, c. St. Cleer	2 14 6	—	5 1/2	188 10 0	2 0 0	Sept. 1870		
300	East Darren, i. Cardiganshire	32 0 0	—	—	11 6 3	0 5 0	Mar. 1871		
6400	East Pool, i. c. Pool, Illogan	0 9 0	—	12 1/2	16 16 0	2 0 0	Feb. 1871		
1806	East Wheal Lovell, i. Wendron	3 9 0	—	28 26 1/2	18 0 0	0 15 0	Mar. 1871		
2800	Foxdale, i. Isle of Man	25 0 0	—	—	4 8 0	0 2 6	Aug. 1869		
5000	Frank Mills, i. Christlough	3 18 6	—	1 1/2	0 3 0	0 3 0	Jan. 1868		
3950	Gawton, c. Tavistock	4 0 0	17	16 17	13 17 0	0 8 0	Mar. 1869		
15000	Great Laxey, i. Isle of Man*	5 0 0	—	—	15 12 0	0 p.c.	Feb. 1869		
3000	Great Northern Manganese*	5 0 0	—	—	0 2 0	0 1 0	Nov. 1870		
5000	Great Wheal Vor, i. c. Helston	40 0 0	—	9 1/2	55 10 0	1 10 0	Feb. 1871		
10240	Gunnislake (Clitters), i. c.	4 19 0	—	41 43	0 2 11 1/2	0 0 0	Dec. 1869		
1024	Herodsford, i. near Liskeard	8 10 0	—	—	1101 0 0	2 0 0	Aug. 1869		
2000	Holmbush, s. i. Kelly Bray, c.	1 0 0	—	—	599 0 0	2 0 0	Jan. 1870		
25000	Killakee, i. Tipperary	1 0 0	1	7 1	4 0 0	0 5 0	Oct. 1868		
165	Levant, c. i. St. Just	1 0 0	—	—	6 18 0	0 4 0	Apr. 1871		
400	Lisburne, i. Cardiganshire	18 15 0	—	—	285 8 3	3 0 0	Feb. 1871		
3000	Maes-y-Safn, i. Flint*	20 0 0	—	—	0 4 6	0 2 1	July 1870		
9000	Marke Valley, c. Caradon	4 10 6	—	7 1/2	0 10 0	0 15 0	Feb. 1871		
1800	Minera Mining Co. i. Wrexham*	25 0 0	—	—	0 4 0	0 1 0	Oct. 1870		
2000	Mining Co. of Ireland, c. i. c.	7 0 0	—	—	0 10 0	0 10 0	Oct. 1870		
5000	New Penbroke, i. c. Par Station	5 0 0	—	—	0 10 0	0 10 0	Nov. 1869		
6000	North Llanfyllid, c. i. Helston	10 12 0	—	—	0 4 0	0 2 6	Mar. 1871		
256	Penrhydd, i. c. Camb.	86 0 0	—	55 60	2 10 0	0 15 0	Feb. 1871		
5000	Penrhall, i. St. Agnes	8 0 0	—	—	0 4 0	0 1 0	Oct. 1870		
5000	Phenix, i. c. Llanfyllid	50 0 0	—	—	18 0 0	3 0 0	Mar. 1871		
2000	Poldice, i. c. Gwennap	10 0 0	—	9 11	16 6 0	0 7 0	Feb. 1871		
12800	Prince of Wales, c. Calstock	0 12 6	—	1 1/2	463 10 0	7 0 0	Feb. 1871		
1120	Providence, i. Llanfyllid	10 6 7	—	34 31 33	1 10 0	0 10 0	Oct. 1870		
15000	Queen, c. i. St. Just	1 8 0	—	—	10 10 0	0 10 0	Nov. 1869		
5869	Rosewell Hill & Ransome, i.	0 10 0	—	1 1/2	0 2 0	0 1 0	Dec. 1870		
512	South Caradon, c. St. Cleer	1 8 0	—	250 310 320	0 13 0	0 1 6	Dec. 1870		
6128	South Condarro, i. c. Camborne	5 5 6	6	5 1/2	602 10 0	3 0 0	Mar. 1871		
6000	South Darren, i. Cardigan	3 6 6	—	—	0 6 0	0 5 0	Mar. 1871		
937	South Wh. Crofty, c. Illogan	24 10 18	18	15 1/2	1 6 0	0 1 0	Nov. 1870		
496	So. Wh. Frances, c. Illog.	18 18 9	38	37 39	3 0 0	0 10 0	June 1870		
242	Spear Moor, i. St. Just	36 17 9	19	—	374 13 6	1 0 0	Mar. 1868		
940	St. Ives Consols, i. St. Ives	10 15 0	—	—	15 15 0	1 0 0	Feb. 1871		
8771	St. Just Amalgamated, i.	3 10 0	—	—	0 10 0	0 10 0	May 1869		
12000	Tankerville, i. Salop*	3 10 0	14	13 1/2	0 5 0	0 2 6	Nov. 1870		
6000	Tincroft, c. i. Pool, Illogan	9 0 0	50	45 50	0 14 0	0 4 0	Jan. 1871		
2000	Trumpet Cons., i. Helston	11 10 0	22	21 1/2	0 5 0	0 15 0	Feb. 1871		
15000	Van, i. Llandiloes*	4 5 0	56	55 57 x.d.	32 2 0	0 12 0	Mar. 1871		
3000	W. Chiverton, i. Perranzabuloe	10 0 0	33	32 33	49 7 6	2 0 0	Mar. 1871		
612	West Wheal Frances, i. Illogan	10 15 0	45	43 45	6 10 0	1 0 0	Apr. 1871		
4000	Wheal Arthur, c. Camborne	47 0 0	135	130 135	674 0 0	2 10 0	Apr. 1871		
2528	Wheal Bassett, c. Illogan	1 0 0	—	—	0 1 0	0 1 0	Mar. 1871		
612	Wheal Basset, c. Illogan	2 2 6	50	40 45	632 10 0	1 0 0	June 1868		
512	Wheal Jane, s. i. Kea	10 15 0	45	40 45	3 6 0	0 1 0	Nov. 1870		
1024	Wheal Kitty, i. St. Agnes	3 10 6	—	8 10	13 12 6	0 5 0	Apr. 1871		
896	Wheal Margaret, i. Llanfyllid	3 17 6	9	8 10	79 5 0	0 10 0	Feb. 1871		
1024	Wheal Mary Ann, i. Menheniot	8 0 0	11	10 12	72 7 6	0 10 0	Mar. 1871		
80	Wheal Oriel, i. St. Just	2 12 6	—	—	0 10 0	0 5 0	Aug. 1869		
12000	Wheal Russell, c. Tavistock	70 0 0	—	—	474 13 0	10 0 0	Nov. 1870		
396	Wheal Seta, c. i. Camborne	61 0 0	22	20 22 1/2	254 13 0	2 0 0	Dec. 1869		
4096	Wheal Uny, i. c. Redruth	10 14 6	6 1/2	6 1/2 x.d.	0 5 0	0 5 0	Apr. 1871		
17000	Wicklow, c. i. Wicklow	2 10 0	—	6 1/2	50 2 6	0 2 6	Sept. 1870		

NON-DIVIDEND FOREIGN MINES.									
Shares.	Mines.	Paid.	Last Pr.	Business.	Total Div.	Per Share.	Last Paid.		
5000	Almaden, i. Spain*	2 0 0	—	2 1/2	0 15 6	0 2 6	Mar. 1871		
5000	Almaden-Tirto Consolidated, s.	1 0 0	—	—	0 1 6	0 1 6	Oct. 1870		
5000	Australian, c. South Australia	7 6 6	—	7 1/2	0 6 0	0 6 0	Aug. 1868		
5000	Cape Copper Mining, s.	7 0 0	15	14 1/2	5 17 6	0 10 0	May 1870		
5000	Central American Association, c.	0 15 0	—	—	0 6 0	0 1 0	July 1870		
5000	Colorado Terrible, c. Colorado*	5 0 0	—	5 1/2	0 2 0	0 2 0	Mar. 1871		
5000	Copiapu Mining Co., Chile	16 10 0	—	1 1/2	0 4 0	0 4 0	Apr. 1869		
5000	Donkey Butch, i. Baf.	0 14 0	—	2 1/2	2 3 9	0 4 0	Mar. 1870		
5000	English and Australian, c.	2 10 0	—	—	1 19 9	0 9 0	Feb. 1869		
5000	Fortuna, i. Spain*	5 0 0	—	2 1/2	0 5 4	0 2 6	Mar. 1871		
5000	Gonnese, i. Sardinia*	5 0 0	—	—	0 p.c.	—	Aug. 1868		
5000	Kapunda Mining Co., Austr.	1 0 0	—	3 1/2	0 10 0	0 6 0	Nov. 1868		
5000	Linares, i. Spain*	3 0 0	—	4 1/2	12 18 4	0 5 0	Mar. 1869		
5000	Panellio, c. Chile*	4 0 0	—	1 1/2	10 p.c.	—	Yearly		
5000	Pontgibaud, s. i. France*	20 0 0	17	16 17	7 1 8	1 15 6	Nov. 1869		
5000	Porto, c. i. France*	1 0 0	—	1 1/2	1 6 0	0 1 6	Jan. 1870		
5000	Sierra Australis Min. Co., i.	1 0 0	—	7 1/2	6 p.c.	—	Apr. 1870		
5000	Scott Buttes, c. California	2 0 0	—	—	0 2 0	0 2 0	Feb. 1871		
5000	South Aurora, s. Nevada*	5 0 0	7	5 7	81 10 0	2 0 0	Mar. 1871		
5000	St. John del Rey, Brazil*	15 0 0	—	—	0 12 0	0 5 0	Dec. 1867		
5000	Sweetland Creek, c. California*	4 0 0	—	4 1/2	0 9 7	0 7 0	July 1868		
5000	Victoria (London) [26000 £1 pd., 25000 18s. pd.]	—	—	—	—	—	—		

NON-DIVIDEND FOREIGN MINES.									
Shares.	Mines.	Paid.	Last Pr.	Business.	Total Div.	Per Share.	Last Paid.		
5000	Anglo-Argentine, s. i. Argentine Republic*	1 0 0	—	—	—	—	—		
5000	Anglo-Australian, c. Victoria* (£2 10s. shares)	1 5 0	—	—	—	—	—		
5000	Anglo-Brazilian, s. i.	0 16 0	—	—	—	—	—		
5000	Anglo-Italian, s. i.	1 7 6	—	—	—	—	—		
5000	Arivaca, s. i. Arizona* (£10 shares)	2 10 0	—	—	—	—	—		
5000	Belmont United, c. Victoria*	2 10 0	—	—	—	—	—		
5000	Bellavista, c. i. Potosi (25 shares)	2 10 0	—	—	—	—	—		
5000	Birdseye Creek, c. California*	2 10 0	—	—	—	—	—		
5000	Braganza, c. Brazil*	0 15 0	—	—	—	—	—		
5000	Capula, s. Mexico*	2 0 0	—	—	—	—	—		
5000	Chontales, c. s. Nicaragua*	5 0 0	—	—	—	—	—		
5000	Colaba, s. Minas Geraes, Brazil	0 10 0	—	—	—	—	—		
5000	Eberhard and Aurora, s. Nevada*	10 0 0	—	—	—	—	—		
5000	El Chico, c. California* (£1 shares)	0 16 0	—	—	—	—	—		
5000	El Chico Silver Mining and Reduction Company*	5 0 0	—	—	—	—	—		
5000	Exchequer, c. s. California	1 0 0	—	—	—	—	—		
5000	Fortune Copper Mining Co., c. New Granada*	2 0 0	—	—	—	—	—		
5000	Frontino and Bolivia, c. New Granada*	0 17 0	—	—	—	—	—		
5000	General Brazilian, s. i. (21 shares)	0 10 0	—	—	—	—	—		
5000	Guerrero, c. Mexico (total cap., 50,000 shares of £1)	0 10 0	—	—	—	—	—		
5000	Imperial Ottoman, s. i. Turkey*	1 0 0	—	—	—	—	—		
5000	Javali, c. Nicaragua	2 0 0	—	—	—	—	—		
5000	Louisiana (Lafayette) (25 shares)	3 0 0	—	—	—	—	—		
5000	New Quebrada, c. Venezuela*	5 0 0	—	—	—	—	—		
5000	New Rosario, c. Mexico	1 0 0	—	—	—	—	—		
5000	Pacific, c. s. Nevada and California*	1 0 0	—	—	—	—	—		
5000	Pastena United, c. Italy*	3 0 0	—	—	—	—	—		
5000	Rossa Grande, c. Brazil* (£1 shares)	0 15 0	—	—	—	—	—		
5000	Sao Vicente, Brazil*	0 6 0	—	—	—	—	—		
5000	Taquaril, c. Brazil* (£1 shares)	0 16 0	—	—	—	—	—		
5000	Tuolumil Reef, c. Australia*	1 0 0	—	—	—	—	—		
5000	Tuolumil Reef, c. Australia*	2 0 0	—	—	—	—	—		
5000	Val Antigua, c. Italy*	28 5 2	—	—	—	—	—		
5000	Working, c. South Australia*	1 12 6	—	—	—	—	—		
5000	York Peninsula, c. South Australia	1 0 0	—	—	—	—	—		
5000	Yudnamutana, c. South Australia*	3 0 0	—	—	—	—	—		

NON-DIVIDEND FOREIGN MINES.									
Shares.	Mines.	Paid.	Last Pr.	Business.	Total Div.	Per Share.	Last Paid.		
5000	Asherton, i. c. Carnarvonshire	5 0 0	—	2 3	—	—	—		
5000	Carn Glyn, i. Cardiganshire*	2 0 0	—	—	—	—	—		
5000	Carn Brea, c. i. Illogan	35 0 0	—	55 57	—	—	—		
5000	Chiverton, i. Perranzabuloe	11 5 0	—	1 1/2	—	—	—		
5000	Chiverton Moor, i. Perranzabuloe	7 11 0	—	3 2 1/2	—	—	—		
5000	Chiverton Valley, i. Perranzabuloe	7 11 0	—	3 2 1/2	—	—	—		
5000	East Basset, c. Redruth	41 0 0	—	3 2 3	—	—	—		
5000	East Grenville, c. Camborne	4 13 0	—	3 1/2	—	—	—		
5000	East, i. Llandiloes*	10 0 0	—	—	—	—	—		
5000	East, i. Llandiloes*								